

Securities and Exchange Commission, Washington, D.C. 20549

Annual Report on Form 10-K for the year ended December 31, 1993.  
Filed pursuant to Section 13 of the Securities Exchange Act of 1934.  
Commission file number 1-10297

## Union Carbide Corporation

### 1993 10-K

Union Carbide Corporation  
39 Old Ridgebury Road  
Danbury, Connecticut 06817-0001

Tel. (203) 794-2000  
State of incorporation: New York  
IRS identification number: 06-1255728

#### Securities registered pursuant to Section 12(b) of the Act:

Class of security:	Registered on:
Common Stock (\$1 par value)	New York Stock Exchange Chicago Stock Exchange, Incorporated The Pacific Stock Exchange Incorporated
Share Purchase Rights Plan	New York Stock Exchange

#### Securities registered pursuant to Section 12(g) of the Act:

NONE

At February 1, 1994, 151,020,802 shares of common stock were outstanding. Non-affiliates held 150,417,407 of those shares, of which the aggregate market value was \$3.751 billion.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 ("the Act") during the preceding 12 months, and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

#### Documents incorporated by reference:

Annual report to stockholders for the year ended December 31, 1993 (Parts I and II)  
Proxy statement for the annual meeting of stockholders to be held on April 27, 1994 (Part III)

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## DEFINITION OF TERMS

See the inside back cover page of the 1993 annual report to stockholders. Terms defined there are used herein.



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## Part I

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### Item 1. Business

**General**—See pages 8 and 9 of the 1993 annual report to stockholders for information about Union Carbide's business.

Union Carbide Corporation is a holding company with one principal subsidiary, Union Carbide Chemicals and Plastics Company Inc. ("UCC&P," formerly named "Union Carbide Corporation.")

On June 30, 1992, the corporation in a special distribution to stockholders spun off its industrial gases subsidiary, Praxair, Inc.

Union Carbide is now engaged almost exclusively in the chemicals and plastics business. The chemicals and plastics industry, especially the commodity sector, is highly cyclical. Union Carbide is a major producer of certain commodity chemicals, principally ethylene glycol and polyethylene. Consequently, Union Carbide's results are subject to the swings of the cycle in those basic chemicals. In periods of excess industry capacity, such as the present, prices for those basic chemicals are low and margins are narrow. See pages 4 through 7 of the 1993 annual report to stockholders for a further discussion.

Union Carbide does not produce against a backlog of firm orders; production is geared primarily to the level of incoming orders and to projections of future demand. Significant inventories of finished products, work in process and raw materials are maintained to meet delivery requirements of customers and Union Carbide's production schedules.

Union Carbide Corporation was incorporated in 1989 under the laws of the State of New York.

**Raw Materials, Products and Markets**—See information herein and in the 1993 annual report to stockholders on pages 8 and 9. Unless otherwise indicated, the products of Union Carbide are sold principally by its own sales force, directly to customers.

Union Carbide believes it has contracts or commitments for, or readily available sources of, hydrocarbon feedstocks and fuel supplies to meet its anticipated needs in all major product areas. UCC&P is dependent in its operations upon the availability of hydrocarbon feedstocks and fuels which are purchased from diverse domestic and international sources, including independent oil and gas producers as well as integrated oil companies.

The availability and price of hydrocarbon feedstocks, energy and finished products are subject to plant interruptions and outages and to market and political conditions in the U.S. and elsewhere. Operations and products at times may be adversely affected by legislation, government regulations, shortages, or international or domestic events.

Union Carbide is not dependent to a significant extent upon a single customer or a few customers.

**Patents; Trademarks; Research and Development**—Union Carbide owns a large number of United States and foreign patents that relate to a wide variety of products and processes, has pending a substantial number of patent applications throughout the world, and is licensed under a number of patents. These patents expire at various times over the next 20 years. Such patents and patent applications in the aggregate are material to Union Carbide's competitive position. No one patent is considered to be material; however, the patent portfolio relating to the UNIPOL polyethylene process technology is, in the aggregate, considered to be material. Union Carbide also has a large number of trademarks. The *UNION CARBIDE*, *UCAR* and *UNIPOL* trademarks are material; no other single trademark is material.

## Part I (Cont.)

Essentially all of Union Carbide's research and development activities are company-sponsored. The principal research and development facilities of Union Carbide are indicated in the discussion of Properties (Item 2) of this Form 10-K report. In addition to the facilities specifically indicated there, product development and process technology laboratories are maintained at some plants. Union Carbide spent \$139 million in 1993, \$155 million in 1992 and \$157 million in 1991 on company-sponsored research activities for continuing operations to develop new products, processes, or services, or to improve existing ones.

**Environment**—See Costs Relating to Protection of the Environment on pages 15 and 16 of the 1993 annual report to stockholders and Note 17 on page 36 and 37 thereof.

**Insurance**—Union Carbide's policy is to obtain public liability insurance coverage at terms and conditions and a price that management considers fair and reasonable. Union Carbide's management believes Union Carbide has public liability insurance in an amount sufficient to meet its current needs in light of pending, threatened, and future litigation and claims. There is no assurance, however, that Union Carbide will not incur losses beyond the limits, or outside the coverage, of its insurance. Such insurance is subject to substantial deductibles.

**Competition**—Each of the major business areas in which Union Carbide participates is highly competitive. In some instances competition comes from manufacturers of the same products as those produced by Union Carbide and in other cases from manufacturers of different products which may serve the same markets as those served by Union Carbide's products. Some of Union Carbide's competitors, such as companies principally engaged in petroleum operations, have more direct access to hydrocarbon feedstocks, and some have greater financial resources than Union Carbide.

There are a number of competitors in each of the businesses in which Union Carbide is active. In some of the individual businesses in which Union Carbide participates there are many competitors; in others there are few. Competition is primarily on price, on product performance and on service to customers.

- Many producers have important industry positions in polyethylene, and Union Carbide is one of the world's largest producers. Other significant producers are Dow Chemical Company, Chevron Corporation, Exxon Corporation, Mobil Corporation, Novacor Chemicals Ltd, Quantum Chemicals Corporation, Occidental Petroleum Corporation, Phillips Petroleum Company, Saudi Basic Industries Corporation and The British Petroleum Company p.l.c.

- Union Carbide is the world's largest producer of ethylene oxide/glycol and derivatives. Other significant producers include Shell Oil Company, Dow Chemical Company, BASF Aktiengesellschaft, The British Petroleum Company p.l.c., Texaco Inc., Occidental Petroleum Corporation, Hoechst Celanese Corporation, and Saudi Basic Industries Corporation.

- In solvents and intermediates, Union Carbide has a significant position in many product areas. Other significant producers include Air Products, Hoechst Celanese Corporation, Rohm & Haas Company, Eastman Chemical Company, Shell Oil Company, Exxon Corporation, BASF Aktiengesellschaft and Quantum Chemicals Corporation.

- Union Carbide participates in a wide range of specialty chemical product/market segments. The competitive position varies widely from one product/market segment to another. Competitors include a number of domestic and foreign companies, both diversified and specialized.

Union Carbide is a major marketer of petrochemical products throughout the world. Products that the Corporation markets are largely produced in the United States, while competitive products are produced throughout the world.

Union Carbide's international operations face competition from local producers and global competitors and a number of other risks inherent in carrying on business outside the United States, including risks of nationalization, expropriation, restrictive action by local governments and changes in currency exchange rates.

## Part I (Cont.)

### Item 2. Properties

The corporation's headquarters are located in Danbury, Connecticut.

In management's opinion, current facilities, together with planned expansions, will provide adequate production capacity to meet Union Carbide's planned business activities. Capital expenditures are discussed on pages 17 and 20 of the 1993 annual report to stockholders.

Listed below are the principal manufacturing facilities operated by Union Carbide worldwide. Research and engineering facilities are noted. Most of the United States and Puerto Rican properties are owned in fee. Union Carbide maintains numerous domestic sales offices and warehouses, substantially all of which are leased premises under relatively short-term leases. All principal international operations' manufacturing properties are owned or held under long-term leases. International operations administrative offices, technical service laboratories, sales offices and warehouses are owned in some instances and held under relatively short-term leases in other instances.

At year-end 1993, 13,051 people were employed worldwide in approximately 50 plants, factories and laboratories around the world.

Principal domestic operations manufacturing facilities and the principal products manufactured there are as follows:

Location	City	Principal Product(s)
California	Ontario	Paralene coating
California	Torrance	Latexes
Georgia	Tucker	Latexes
Illinois	Alsip	Latexes
Illinois	Bensenville	Printed circuit chemicals
Indiana	Castleton	Paralene coating
Indiana	Indianapolis	Coating and bonding systems
Kentucky	Henderson	Dielectric fluid
Louisiana	Greensburg	Hydroxyethyl cellulose derivatives
Louisiana	Taft	Acrolein and derivatives, acrylic monomers, caprolactone, uv-curing, cycloaliphatic epoxides, ethylene oxide and glycol, glycol ethers, olefins
Louisiana	Taft (Star Plant)	Polyethylene
New Hampshire	Amherst	Paralene coating
New Jersey	Bound Brook	Coatings resins, polyethylene compounding, recycled plastics
New Jersey	Edison	Lanolin derivatives
New Jersey	Somerset	Latexes
New York	Mamaroneck	Lanolin derivatives
Puerto Rico	Bayamon	Latexes
Tennessee	Chattanooga	Paralene coating
Texas	Garland	Latexes
Texas	Seadrift	Alkanolamines, ethylene oxide and glycol, glycol ethers, olefins, polyethylene, polypropylene, TERGITOL surfactants

## Part I (Cont.)

Location	City	Principal Product(s)
Texas	Texas City	Olefins, organic acids and esters, alcohols, <i>TERGITOL</i> surfactants, vinyl acetate, coatings resins
Washington	Washougal	Crystal products
West Virginia	Institute	Caprolactone derivatives, <i>CARBOWAX</i> polyethylene glycol, hydroxyethyl cellulose, <i>POLYOX</i> polyethylene oxide, ketones, <i>TRITON</i> and <i>TERGITOL</i> surfactants, ethylidene norbornene
West Virginia	South Charleston	Alkyl alkanolamines, brake fluids, miscellaneous specialty products, <i>UCON</i> fluids
Wisconsin	Clear Lake	Conformal coating services

Research and development are carried on at technical centers in Bound Brook, Edison and Somerset, New Jersey; Tarrytown, New York; Cary, North Carolina; Washougal, Washington; Sistersville and South Charleston, West Virginia. Process and design engineering is conducted at the technical center in South Charleston, West Virginia in support of domestic and foreign projects.

Principal international operations manufacturing facilities and the principal products manufactured there are as follows:

Country	City	Principal Product(s)
Belgium	Antwerp	Hydroxyethyl cellulose
Belgium	Vilvoorde	Lanolin derivatives
Brazil	Aratu	Hydroxyethyl cellulose
Brazil	Cubatao	Polyethylene
Canada	Boucherville	Molded polyethylene products
Canada	Cowansville	Polyethylene film
Canada	Orangeville	Polyethylene film
Canada	Orillia	Polyethylene film
Canada	Prentiss	Ethylene glycol
Dubai, UAE	Jebel Ali Free Trade Zone	Latex
Ecuador	Guayaquil	Latex, coatings resins
Hong Kong	Kowloon	Latex, fluxes
Indonesia	Jakarta	Latex
Malaysia	Seremban	Latex
People's Republic of China	Guangdong Province	Latex
Philippines	Batangas	Latex
Singapore	Jurong	Latex, conformal coating services

## Part I (Cont.)

Country	City	Principal Product(s)
Sri Lanka	Ekala	Latex
Thailand	Nonthaburi	Latex
United Kingdom	Northampton	Conformal coatings services

Research and development are carried on at international operations facilities in Antwerp, Belgium; Montreal East, Canada; Cubatao, Brazil; Versoix, Switzerland and Jurong, Singapore.

### Item 3. Legal Proceedings

See Note 17 of Notes to Financial Statements on page 36 and 37 of the 1993 annual report to stockholders.

On November 19, 1993, the U.S. Environmental Protection Agency ("EPA") issued a complaint to UCC&P alleging violations of the federal Clean Air Act at the Texas City, Texas plant. The complaint seeks a civil penalty of \$194,550.

As reported in the corporation's 1991 Form 10-K, on January 2, 1992, the EPA served a complaint on UCC&P alleging violations of the hazardous waste laws in connection with disposal of wastes from UCC&P's Texas City, Texas, plant at a Gulf Coast Waste Disposal Authority ("Gulf Coast") landfill and seeking a civil penalty of \$170,150. In December 1993, UCC&P and EPA reached a settlement of this matter pursuant to which UCC&P paid a penalty of \$95,000. Also as previously reported, on January 3, 1992, Gulf Coast received a complaint from the EPA arising out of the same incident. The complaint sought a penalty of \$129,000. Gulf Coast settled this action in April 1993, by payment of \$60,000. UCC&P indemnified Gulf Coast for \$45,600 of this penalty.

On February 23, 1994, the EPA issued a complaint and compliance order to UCC&P alleging violations of federal Hazardous Waste Regulations at the South Charleston, West Virginia plant. The complaint seeks a civil penalty of \$320,300.

### Item 4. Submission of Matters to a Vote of Security Holders

The corporation did not submit any matters to a stockholder vote during the last quarter of 1993.

## **Part II**

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### **Item 5. Market for Registrant's Common Equity and Related Stockholder Matters**

Market and dividend information for the corporation's common stock is contained on pages 19 and 20 of the 1993 annual report to stockholders. The stock exchanges where the stock is traded are listed on page 39 of the 1993 annual report to stockholders. The declaration of dividends is a business decision made from time to time by the Board of Directors based on the corporation's earnings and financial condition and other factors the Board considers relevant.

The number of stockholders of record of the corporation's common stock is contained on page 1 of the 1993 annual report to stockholders.

### **Item 6. Selected Financial Data**

Information pertaining to consolidated operations is included under the captions "From the Income Statement," and "From the Balance Sheet (At Year-end)", and dividend information is included under the caption "Other Data" in the Selected Financial Data on page 20 of the 1993 annual report to stockholders.

### **Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

See the information covered in the 1993 annual report to stockholders on pages 12 through 18.

### **Item 8. Financial Statements and Supplementary Data**

The consolidated balance sheet of Union Carbide Corporation and subsidiaries at December 31, 1993 and 1992, and the consolidated statements of income, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 1993, together with the report thereon of KPMG Peat Marwick dated January 26, 1994, are contained on pages 21 through 38 of the 1993 annual report to stockholders.

Quarterly income statement data is contained on page 19 of the 1993 annual report to stockholders.

### **Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

Union Carbide has not had any disagreements covered by this item with KPMG Peat Marwick, its independent auditors.

## Part III

### Item 10. Directors and Executive Officers of the Registrant

For background information on the Directors of Union Carbide Corporation whose terms are expected to continue after the annual meeting of stockholders and persons nominated to become Directors, see pages 16 through 20 of the proxy statement for the annual meeting of stockholders to be held on April 27, 1994.

The principal executive officers of the corporation are as follows. Data is as of March 15, 1994.

Name	Age	Position	Year First Elected
Robert D. Kennedy	61	Chairman of the Board and Chief Executive Officer	1986
William H. Joyce	58	President and Chief Operating Officer	1993
Joseph S. Byck	52	Vice-President	1991
James F. Flynn	51	Vice-President	1993
Joseph E. Geoghan	56	Vice-President, General Counsel and Secretary	1987
Thomas D. Jones	59	Vice-President and Treasurer	1993
Malcolm A. Kessinger	50	Vice-President	1991
Lee P. McMaster	51	Vice-President	1993
Gilbert E. Playford	46	Vice-President and Principal Financial Officer	1991
Joseph C. Soviero	55	Vice-President	1993
Roger B. Staub	59	Vice-President	1993
Ronald Van Mynen	56	Vice-President	1992
John K. Wulff	45	Vice-President, Controller and Principal Accounting Officer	1988

There are no family relationships between any officers or directors of the corporation. There is no arrangement or understanding between any officer and any other person pursuant to which the officer was elected an officer. An officer is elected by the Board of Directors to serve until the next annual meeting of stockholders and until his successor is elected and qualified.

The table on the next page gives a summary of the positions held during at least the past five years by each officer whose position or positions with the corporation or its subsidiaries during the past five years have not been accounted for by the above table. Each of the officers has been employed by the corporation or a subsidiary of the corporation for the past five years.

### Part III (Cont.)

Name	Position	Years Held
Robert D. Kennedy	Chairman of the Board and Chief Executive Officer	1990 to present
	Chairman of the Board, President and Chief Executive Officer	1986 to 1990
	President	1985 to 1986
William H. Joyce	President and Chief Operating Officer	1993 to present
	Executive Vice-President	1991 to 1993
	President, Union Carbide Chemicals and Plastics Company Inc.	1993 to present
	Executive Vice-President, Union Carbide Chemicals and Plastics Company Inc.	1990 to 1993
	Vice-President	1990 to 1991
	Vice-President, Union Carbide Chemicals and Plastics Company Inc.	1989 to 1990
	President, Polyolefins Division	1985 to 1990
Joseph S. Byck	Vice-President	1991 to present
	Vice-President, Union Carbide Chemicals and Plastics Company Inc.	1991 to present
	Vice-President, Business Development and Planning, Union Carbide Chemicals and Plastics Company Inc.	1989 to 1991
	Vice-President, Polyolefins Division	1986 to 1989
James F. Flynn	Vice-President	1993 to present
	Vice-President, General Manager Solvents & Coatings Materials Division	1989 to 1993
	Vice-President, General Manager Specialty Chemicals Division	1983 to 1989
Joseph E. Geoghan	Vice-President, General Counsel and Secretary	1990 to present
	Vice-President and General Counsel	1987 to 1990
	Deputy General Counsel	1985 to 1987
Thomas D. Jones	Vice-President and Treasurer	1993 to present
	Vice-President, Treasurer and Principal Financial Officer, Union Carbide Chemicals and Plastics Company Inc.	1992 to present
	Associate Treasurer	1992 to 1993
	Assistant Treasurer	1987 to 1992
Malcolm A. Kessinger	Vice-President	1991 to present
	Vice-President, Human Resources, Union Carbide Chemicals and Plastics Company Inc.	1990 to present
	Corporate Director of Human Resources	1986 to 1990
Lee P. McMaster	Vice-President	1993 to present
	President, Industrial Chemicals Division	1992 to 1993
	Vice-President, General Manager, Polyolefins Division	1989 to 1992

## Part III (Cont.)

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Gilbert E. Playford	Vice-President and Principal Financial Officer	1993 to present
	Vice-President, Treasurer and Principal Financial Officer	1992 to 1993
	Vice-President	1991 to 1992
	Vice-President, Corporate Holdings	1991
	Vice-President	1989 to 1991
	Vice-President, Treasurer and Chief Financial Officer, Union Carbide Canada Ltd.	1988 to 1989
	Vice-President and Treasurer, Union Carbide Canada Ltd.	1984 to 1988
Joseph C. Soviero	Vice-President	1993 to present
	President, Specialty Chemicals Division	1983 to 1993
Roger B. Staub	Vice-President	1993 to present
	President, Polyolefins Division	1990 to 1993
	Vice-President, General Manager, Polyolefins Division	1988 to 1990
Ronald Van Mynen	Vice-President, Health, Safety and Environment	1992 to present
	Vice-President, Health, Safety and Environmental Affairs Union Carbide Chemicals and Plastics Company Inc.	1985 to present
	Corporate Director, Occupational Health and Personnel Safety	1984 to 1985
John K. Wulff	Vice-President, Controller and Principal Accounting Officer	1989 to present
	Vice-President and Controller	1988 to 1989
	Deputy Controller	1987 to 1988
	Partner of Peat Marwick Main & Co. (now KPMG Peat Marwick)	Prior to 1987

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### Item 11. Executive Compensation

See pages 29 through 31 of the proxy statement for the annual meeting of stockholders to be held on April 27, 1994.

### Item 12. Security Ownership of Certain Beneficial Owners and Management

See pages 32 and 33 of the proxy statement for the annual meeting of stockholders to be held on April 27, 1994.

### Item 13. Certain Relationships and Related Transactions

No reportable transactions in 1993.

## Part IV

### Item 14. Exhibits, Financial Statement Schedules, and Reports on Form 8-K

#### UNION CARBIDE CORPORATION

(a) The following documents are filed as part of this report:

1. The consolidated financial statements set forth on pages 21 through 37 and the Independent Auditors' Report set forth on page 38 of the 1993 annual report to stockholders are incorporated by reference in this Form 10-K Annual Report.
2. The Report on Schedules of KPMG Peat Marwick appears on page 11 of this Form 10-K Annual Report.
3. The following schedules should be read in conjunction with the consolidated financial statements incorporated by reference in Item 8 of this Form 10-K Annual Report. Schedules other than those listed have been omitted because they are not applicable.

	Page in this Form 10-K Report
Amounts Receivable from Related Parties and Underwriters, Promoters, and Employees Other than Related Parties (Schedule II), three years ended December 31, 1993	12
Indebtedness of Related Parties – Not Current (Schedule IV), three years ended December 31, 1993	12
Property, Plant, and Equipment (Schedule V), three years ended December 31, 1993	13
Accumulated Depreciation and Amortization of Property, Plant and Equipment (Schedule VI), three years ended December 31, 1993	14
Guarantees of Securities of Other Issuers (Schedule VII), at December 31, 1993	15
Valuation and Qualifying Accounts (Schedule VIII), three years ended December 31, 1993	15
Short-term Borrowings (Schedule IX), three years ended December 31, 1993	16
Supplementary Income Statement Information (Schedule X), three years ended December 31, 1993	16

(b) No reports on Form 8-K were filed for the three months ended December 31, 1993.

(c) Exhibits—See Exhibit Index on pages 41 through 44 for exhibits filed with this Annual Report on Form 10-K.

#### UOP

- (d) Audited financial statements, with Independent Auditors Report thereon, appearing on pages 17 through 39, of UOP, are filed pursuant to Regulation S-X, Rule 3.09. UOP is a general partnership between EM Sector Holdings Inc. and Catalysts, Adsorbents and Process Systgems, Inc., wholly owned subsidiaries of AlliedSignal Inc. and the corporation, respectively.

## Part IV (Cont.)

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### Report of Independent Auditors

The Board of Directors  
Union Carbide Corporation

Under date of January 26, 1994, we reported on the consolidated balance sheets of Union Carbide Corporation and subsidiaries as of December 31, 1993 and 1992, and the related consolidated statements of income, stockholders' equity and cash flows for each of the years in the three-year period ended December 31, 1993, as contained on pages 21 through 37 in the 1993 annual report to stockholders. These consolidated financial statements and our report thereon are incorporated by reference in the annual report on Form 10-K for the year 1993. In connection with our audits of the aforementioned consolidated financial statements, we also have audited the related financial statement schedules as listed in Item 14(a)3. These financial statement schedules are the responsibility of the company's management. Our responsibility is to express an opinion on these financial statement schedules based on our audits.

In our opinion, such financial statement schedules, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

As discussed in Note 1 to the consolidated financial statements, in 1993 the company changed its method of accounting for postemployment benefits and in 1992 its methods of accounting for postretirement benefits other than pensions and income taxes.

KPMG PEAT MARWICK

Stamford, Conn.  
January 26, 1994

## Part IV (Cont.)

### Schedule II—Amounts Receivable from Related Parties and Underwriters, Promoters, and Employees Other Than Related Parties

Union Carbide Corporation and Consolidated Subsidiaries		Thousands of dollars		
	Balance at beginning of period	Additions	Deductions <sup>(a)</sup>	Balance at end of period
Year Ended December 31, 1993				
R. Natarajan <sup>(b)</sup>	\$300	—	—	\$300
Year Ended December 31, 1992				
R. Natarajan <sup>(b)</sup>	—	\$300	—	\$300
Year Ended December 31, 1991				
Y. Takeuchi <sup>(c)</sup>	\$187	—	\$187	—

(a) Represents repayments and translation adjustments.

(b) R. Natarajan is President of Union Carbide Asia Pacific Inc. Mr. Natarajan was granted a non-interest bearing, twenty year loan with monthly repayment to commence January 1994.

(c) Y. Takeuchi is a director of Union Carbide Japan K.K., a subsidiary of the corporation. Mr. Takeuchi was granted a loan by Union Carbide Japan K.K. with varying interest rates and repayment dates.

### Schedule IV—Indebtedness of Related Parties – Not Current

Union Carbide Corporation and Consolidated Subsidiaries		Millions of dollars		
	Balance at beginning of period	Additions	Deductions	Balance at end of period
Year Ended December 31, 1993	\$ —	—	—	\$ —
Year Ended December 31, 1992	\$ —	—	—	\$ —
Year Ended December 31, 1991				
Praxair	\$ 989	\$ 49	\$1,038 <sup>(a)</sup>	\$ —

(a) The above represents Praxair debt owed to the corporation. Prior to its spin-off from the corporation (see Note 5 on page 28 of the 1993 annual report to stockholders), Praxair obtained third party financing to repay substantially all amounts due to the corporation.

## Part IV (Cont.)

### Schedule V—Property, Plant and Equipment

Union Carbide Corporation and Consolidated Subsidiaries

Classification	Balance at beginning of period	Additions at cost <sup>(a)</sup>	Retirements or sales	Other changes <sup>(b)</sup> Add (deduct)	Translation adjustments	Balance at end of period
Millions of dollars, year ended December 31, 1993						
Land and improvements	\$ 299	\$ 16	\$ (28)	\$ —	\$ —	\$ 287
Buildings	382	6	(40)	(7)	(3)	338
Machinery and equipment	4,693	310	(350)	23	(20)	4,656
Construction in progress and other	356	63	(7)	(66)	(1)	345
	\$5,730	\$ 395	\$ (425)	\$ (50)	\$ (24)	\$5,626
Millions of dollars, year ended December 31, 1992						
Land and improvements	\$ 295	\$ 13	\$ (3)	\$ (4)	\$ (2)	\$ 299
Buildings	370	15	(1)	1	(3)	382
Machinery and equipment	4,432	368	(79)	—	(28)	4,693
Construction in progress and other	445	(37)	—	(49)	(3)	356
	\$5,542	\$ 359	\$ (83)	\$ (52)	\$ (36)	\$5,730
Millions of dollars, year ended December 31, 1991						
Land and improvements	\$ 274	\$ 15	\$ (2)	\$ 8	\$ —	\$ 295
Buildings	348	17	(6)	11	—	370
Machinery and equipment	4,228	261	(62)	(2)	7	4,432
Construction in progress and other	368	107	(3)	(23)	(4)	445
	\$5,218	\$ 400	\$ (73)	\$ (6)	\$ 3	\$5,542

(a) Union Carbide's capital expenditures for the years 1988 through 1993 are included in Selected Financial Data on page 20 of the 1993 annual report to stockholders.

(b) All years include additions for acquired companies, certain reclassifications of property and write-downs, and deductions for stock divestitures.

## Part IV (Cont.)

### Schedule VI—Accumulated Depreciation and Amortization of Property, Plant and Equipment

Union Carbide Corporation and Consolidated Subsidiaries

Classification	Balance at beginning of period	Additions Charged to profit and loss	Deductions Retirements or sales	Other changes <sup>(a)</sup> Add (deduct)	Translation adjustments	Balance at end of period
Millions of dollars, year ended December 31, 1993						
Land and improvements	\$ 140	\$ 8	\$ (15)	\$ (1)	\$ —	\$ 132
Buildings	206	10	(14)	(2)	(1)	199
Machinery and equipment	2,833	233	(228)	31	(9)	2,860
Construction in progress and other <sup>(b)</sup>	12	2	—	1	—	15
	\$3,191	\$253 <sup>(c)</sup>	\$ (257)	\$ 29	\$ (10)	\$3,206
Millions of dollars, year ended December 31, 1992						
Land and improvements	\$ 134	\$ 9	\$ (1)	\$ (1)	\$ (1)	\$ 140
Buildings	199	10	(1)	(1)	(1)	206
Machinery and equipment	2,698	251	(76)	(25)	(15)	2,833
Construction in progress and other <sup>(b)</sup>	12	3	(1)	(2)	—	12
	\$3,043	\$273 <sup>(c)</sup>	\$ (79)	\$ (29)	\$ (17)	\$3,191
Millions of dollars, year ended December 31, 1991						
Land and improvements	\$ 128	\$ 8	\$ (1)	\$ (1)	\$ —	\$ 134
Buildings	188	10	(4)	5	—	199
Machinery and equipment	2,505	244	(47)	(5)	1	2,698
Construction in progress and other <sup>(b)</sup>	11	4	(2)	(1)	—	12
	\$2,832	\$266 <sup>(c)</sup>	\$ (54)	\$ (2)	\$ 1	\$3,043

(a) All years include additions for acquired companies, certain reclassifications of property and write-downs, and deductions for stock divestitures.

(b) Consists primarily of the amortization of leaseholds.

(c) Excludes amortization of intangibles of \$23 million in 1993, \$20 million in 1992 and \$21 million in 1991. Such amortization has been included in *Depreciation and amortization* in the Consolidated Statement of Income.

Following is a summary of lives used for calculating depreciation.

Class of Property	Lives Used
Land improvements	20 years
Buildings	20 to 40 years
Machinery and equipment	10 to 15 years
Leasehold improvements	Lease period

## Part IV (Cont.)

### Schedule VII—Guarantees of Securities of Other Issuers

Union Carbide Corporation and Consolidated Subsidiaries

Name of Issuer of Securities Guaranteed by Person for Which Statement is Filed	Title of Issue of Each Class of Securities Guaranteed	Total Amount Guaranteed and Outstanding <sup>(a)</sup>
Millions of dollars at December 31, 1993		
DCS Capital Corporation	Commercial loans	\$38 <sup>(b)</sup>

(a) See Note 17 of Notes to Financial Statements on page 36 and 37 of the 1993 annual report to stockholders. Union Carbide's contingent obligations disclosed in Note 17 include the amounts presented in this schedule.

(b) Represents the portion of the debt of DCS Capital Corporation for which the corporation is responsible. Such portion is not directly guaranteed by the corporation but is secured by a cash deficiency agreement that is guaranteed by the corporation. The annual aggregate amount of interest for which the corporation is responsible is approximately \$3 million.

At December 31, 1993, the corporation had a contingent obligation with respect to \$31 million of pollution abatement facility obligations assumed by purchasers of Union Carbide facilities. This amount has been included in Union Carbide's contingent obligations disclosed in Note 17 of Notes to Financial Statements referred to above.

### Schedule VIII—Valuation and Qualifying Accounts

Union Carbide Corporation and Consolidated Subsidiaries

	Balance at beginning of period	Additions Charged to costs and expenses	Deductions Items determined to be uncollectible, less recovery of amounts previously written off	Balance at end of period
Millions of dollars, year ended December 31, 1993				
Allowance for doubtful accounts	\$ 9	\$5	\$2	\$12
Millions of dollars, year ended December 31, 1992				
Allowance for doubtful accounts	\$10	\$2	\$3	\$ 9
Millions of dollars, year ended December 31, 1991				
Allowance for doubtful accounts	\$10	\$2	\$2	\$10

## Part IV (Cont.)

### Schedule IX—Short-Term Borrowings

Union Carbide Corporation and Consolidated Subsidiaries

Category of aggregate short-term borrowings	Balance at end of period	Weighted average interest rate	Maximum month-end amount outstanding during the period	Average amount outstanding during the period*	Weighted average interest rate during the period*
Dollar amounts in millions, year ended December 31, 1993					
Bank loans and commercial paper	\$ 24	10%	\$ 381	\$135	6%
Dollar amounts in millions, year ended December 31, 1992					
Bank loans and commercial paper	\$324	6%	\$ 786	\$467	5%
Dollar amounts in millions, year ended December 31, 1991					
Bank loans and commercial paper	\$606	7%	\$1,179	\$955	7%

\*Based on balances outstanding at the end of each month.

### Schedule X—Supplementary Income Statement Information

Union Carbide Corporation and Consolidated Subsidiaries

Millions of dollars, year ended December 31,

	1993	1992	1991
Maintenance and repairs	\$274	\$305	\$323
Taxes other than income taxes			
Real and personal property	\$ 42	\$ 44	\$ 40
Social security	58	60	59
Other taxes	27	27	28
	\$127	\$131	\$127

## Part IV (Cont.)

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### Report of Independent Accountants

To the Management Committee and Partners of UOP

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of income, of partners' common equity and of cash flows present fairly, in all material respects, the financial position of UOP and its subsidiaries (a general partnership between EM Sector Holdings Inc. and Catalysts, Adsorbents and Process Systems, Inc.) at December 31, 1993 and 1992, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1993, in conformity with generally accepted accounting principles. These financial statements are the responsibility of the Partnership's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for the opinion expressed above.

As discussed in Notes 14 and 15 to the consolidated financial statements, in 1993 the Partnership changed its methods of accounting for income taxes and postemployment benefits. As discussed in Note 15 to the consolidated financial statements, in 1992 the Partnership changed its method of accounting for postretirement benefits other than pensions.

Price Waterhouse

Chicago, Illinois  
January 26, 1994

## Part IV (Cont.)

### UOP CONSOLIDATED BALANCE SHEETS (amounts in thousands)

	December 31,	
	1993	1992
Current assets:		
Cash and cash equivalents	\$ 23,421	\$ 23,557
Accounts receivable, net (Note 4)	156,088	163,619
Amounts due from affiliates (Note 3)	15,164	17,759
Unbilled revenue under customer contracts (Note 6)	39,264	21,247
Inventories (Note 7)	91,225	99,982
Other current assets (Note 12)	20,449	38,485
Total current assets	345,611	364,649
Property, plant and equipment, net (Note 8)	303,150	293,840
Note receivable from Allied (Note 5)	—	234,000
Intangible assets, net	144,978	155,883
Investments in affiliates	30,676	25,404
Other noncurrent assets (Note 12)	4,410	3,083
Total assets	\$828,825	\$1,076,859
Current liabilities:		
Short-term notes payable to banks (Note 10)	\$ 1,049	\$ 7,815
Current portion of long-term debt	34,168	1,043
Accounts payable	69,727	72,479
Accrued liabilities (Note 9)	90,431	89,261
Amounts due to affiliates (Note 3)	1,751	2,721
Income taxes payable	10,014	9,138
Billings in excess of revenue earned or costs incurred (Note 6)	17,374	23,219
Deferred revenue	7,715	11,950
Total current liabilities	232,229	217,626
Long-term debt (Note 10)	230,326	240,062
Deferred income taxes	1,209	2,894
Long-term deferred revenue	538	591
Other noncurrent liabilities (Note 15)	82,802	61,535
Commitments and contingencies (Notes 13 and 16)		
Total liabilities	547,104	522,708
Minority interest	1,834	1,634
Preferred capital (Note 3)	—	239,603
Partners' common equity	279,887	312,914
Total liabilities, minority interest, preferred capital and partners' common equity	\$828,825	\$1,076,859

The accompanying notes are an integral part of these financial statements.

## Part IV (Cont.)

### UOP CONSOLIDATED STATEMENTS OF INCOME (amounts in thousands)

	Year ended December 31,		
	1993	1992	1991
Revenues (Note 2):			
Products and equipment	\$566,109	\$585,852	\$566,385
Services	129,488	115,212	105,420
Royalties	122,774	132,583	114,271
	818,371	833,647	786,076
Costs and expenses:			
Cost of products and equipment revenues	338,571	362,381	351,627
Cost of service revenues	88,253	85,266	71,602
Research and development (Note 2)	82,350	82,898	78,264
Marketing	72,758	71,446	64,719
General and administrative	50,498	62,647	61,732
Amortization of intangible assets	11,515	11,188	10,581
	643,945	675,826	638,525
Income from operations	174,426	157,821	147,551
Interest expense	(15,344)	(15,140)	(16,187)
Interest income from Allied (Note 5)	17,053	22,291	22,230
Other interest income	1,161	1,967	2,593
Equity in earnings of affiliates	3,897	4,199	6,485
Other income (expense), net	3,117	(1,155)	(1,101)
Income from continuing operations before income taxes and minority interest	184,310	169,983	161,571
Provision for income taxes (Note 14)	25,887	23,308	15,967
Minority interest	322	321	388
Income from continuing operations	158,101	146,354	145,216
Discontinued operations (Note 12):			
Loss from discontinued operations	—	—	17,863
Loss on disposal	—	—	120,000
Income before cumulative effect of changes in accounting principles	158,101	146,354	7,353
Cumulative effect of change in accounting for:			
Postemployment benefits	(22,000)	—	—
Deferred income taxes	2,995	—	—
Postretirement benefits other than pensions	—	(37,448)	—
Net income	\$139,096	\$108,906	\$ 7,353

The accompanying notes are an integral part of these financial statements.

## Part IV (Cont.)

UOP  
CONSOLIDATED STATEMENTS OF PARTNERS' COMMON EQUITY  
YEARS ENDED DECEMBER 31, 1993, 1992 AND 1991  
(amounts in thousands)

	EM Sector Holdings Inc.	Catalysts, Adsorbents and Process Systems, Inc.	Total
Partners' common equity at December 31, 1990	\$225,265	\$225,265	\$450,530
Allocation of net income	\$14,791.5	\$(7,438.5)	7,353
Transfer to preferred capital (Note 3)	(22,230)		(22,230)
	(7,438.5)	(7,438.5)	(14,877)
Allocation of change in cumulative translation adjustment	(2,422.5)	(2,422.5)	(4,845)
Distributions	(40,000)	(40,000)	(80,000)
Partners' common equity at December 31, 1991	175,404	175,404	350,808
Allocation of net income	65,598.5	43,307.5	108,906
Transfer to preferred capital (Note 3)	(22,291)		(22,291)
	43,307.5	43,307.5	86,615
Allocation of change in cumulative translation adjustment	(2,254.5)	(2,254.5)	(4,509)
Distributions	(60,000)	(60,000)	(120,000)
Partners' common equity at December 31, 1992	156,457	156,457	312,914
Allocation of net income	78,074.5	61,021.5	139,096
Transfer to preferred capital (Note 3)	(17,053)		(17,053)
	61,021.5	61,021.5	122,043
Allocation of change in cumulative translation adjustment	(35)	(35)	(70)
Distributions	(77,500)	(77,500)	(155,000)
Partners' common equity at December 31, 1993	\$139,943.5	\$139,943.5	\$279,887

The accompanying notes are an integral part of these financial statements.

## Part IV (Cont.)

### UOP CONSOLIDATED STATEMENTS OF CASH FLOWS (amounts in thousands)

	Year ended December 31,		
	1993	1992	1991
Cash flows from operating activities:			
Net income	\$139,096	\$108,906	\$ 7,353
Less: Interest income from Allied	(17,053)	(22,291)	(22,230)
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	32,195	27,981	31,596
Amortization of intangible assets	11,515	11,188	10,581
Cumulative effect for postemployment benefits	22,000	—	—
Cumulative effect for deferred taxes	(2,995)	—	—
Cumulative effect for postretirement benefits	—	37,448	—
Loss on disposal of discontinued operations	—	—	120,000
Equity in earnings of affiliates	(3,897)	(4,199)	(6,485)
Changes in current assets and current liabilities:			
Accounts receivable	7,531	23,534	(26,518)
Unbilled revenue under customer contracts	(18,017)	9,124	(9,305)
Inventories	8,757	7,167	(4,858)
Other current assets	(2,264)	(10,666)	(537)
Amounts due from (to) affiliates	(3,978)	5,369	2,025
Accounts payable	(2,752)	519	18,036
Accrued liabilities and income taxes payable	(9,993)	(25,909)	13,139
Billings in excess and deferred revenue	(10,080)	(1,368)	6,561
(Increase) decrease in other noncurrent assets	(1,937)	12,772	1,862
Increase (decrease) in deferred income taxes	1,310	(1,319)	556
Increase (decrease) in other noncurrent liabilities	9,453	9,061	(557)
Other, net	(2,726)	(6,966)	2,577
Net cash provided by operating activities	156,165	180,351	143,796
Cash flows from investing activities:			
Capital expenditures	(43,290)	(80,011)	(96,231)
Proceeds from sale of discontinued operations	22,300	—	—
Net carrying value of asset disposals	222	452	71
Dividends received from affiliates	2,199	3,942	4,120
Net cash used in investing activities	(18,569)	(75,617)	(92,040)
Cash flows from financing activities:			
Borrowings under bank loan agreements	38,808	525,957	1,633,526
Principal payments under bank loan agreements	(24,650)	(685,958)	(1,555,492)
Net change in short-term borrowings	(6,766)	(14,776)	22,190
Net change in commercial paper	9,876	176,388	(56,388)
Preferred capital payment	(251,053)	(22,291)	(22,230)
Interest income from Allied	17,053	22,291	22,230
Proceeds from note receivable from Allied	234,000	—	—
Common equity distributions to Partners	(155,000)	(120,000)	(80,000)
Net cash used by financing activities	(137,732)	(118,389)	(36,164)
Net increase (decrease) in cash and cash equivalents	(136)	(13,655)	15,592
Cash and cash equivalents:			
Beginning of period	23,557	37,212	21,620
End of period	\$ 23,421	\$ 23,557	\$ 37,212

The accompanying notes are an integral part of these financial statements.

## Part IV (Cont.)

### UOP NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (amounts in thousands)

#### NOTE 1 - BASIS OF PRESENTATION

On August 22, 1988, UOP Inc., subsequently renamed EM Sector Holdings Inc. (EMSH), a wholly owned subsidiary of Allied-Signal Inc. (Allied), and Katalistiks International, Inc., subsequently renamed Catalysts, Adsorbents and Process Systems, Inc. (CAPS), a wholly owned subsidiary of Union Carbide Chemicals and Plastics Company Inc., which is a wholly owned subsidiary of Union Carbide Corporation (UCC), entered into an agreement to form a general partnership, UOP. Pursuant to the agreement, the Partnership was formed effective May 1, 1988 for financial reporting purposes by combining certain operations of UOP Inc. with the catalysts, adsorbents and process systems business of UCC. Noncash assets contributed by the Partners were recorded by UOP at predecessor basis.

UOP is a general partnership organized under the laws of the state of New York. The Partnership operates principally in one business segment, the petroleum related industries, which encompasses supplying on a worldwide basis: technology, products, engineered systems and services to the petroleum refining, petrochemical, gas processing and chemical related businesses. UOP is a world leading producer and supplier of adsorbent molecular sieves for various uses in numerous businesses.

The Partnership agreement provides that consolidated net income or loss after adjustment for preferred capital transfers (Note 3), is shared equally between the Partners. In addition, the Partnership agreement provides that UOP make common equity distributions of available cash, as defined, equally to the Partners on each quarterly distribution date.

The consolidated financial statements include the accounts of UOP and all majority owned subsidiaries. All material intercompany transactions have been eliminated. Investments in less than majority owned companies in which there is a 20% or greater ownership are accounted for by the equity method.

#### NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies of UOP and subsidiaries, as summarized below, conform with generally accepted accounting principles and reflect practices appropriate to the businesses in which they operate.

**Cash equivalents**—Cash equivalents are stated at cost which approximates market and consist of short-term investments which have original maturities of ninety days or less.

**Inventories**—Inventories are stated at the lower of cost or market. Cost is determined using the last-in, first-out (LIFO) method for substantially all domestic product inventories and the first-in, first-out (FIFO) method for supplies, spare parts and foreign inventories.

At December 31, 1993 and 1992, \$59,397 and \$66,475, respectively, of inventories were valued using the LIFO method. If the FIFO method were used, these inventories would have been valued at \$69,527 and \$75,745, respectively.

During 1993 and 1992, certain inventory quantities were reduced. This reduction resulted in a liquidation of LIFO inventory quantities carried at lower costs prevailing in prior years as compared with the costs of 1993 and 1992 purchases, the effect of which was to increase net income by approximately \$2,400 and \$2,800, respectively.

## Part IV (Cont.)

### NOTES (Cont.)

Property, plant and equipment—Property, plant and equipment are carried at cost and are depreciated using the straight-line method over estimated service lives which range from 3 to 40 years. Expenditures for maintenance and repairs are charged to expense as incurred.

UOP capitalizes interest costs as a part of the costs of constructing major facilities and equipment. Interest costs of \$1,588, \$5,310 and \$3,057 were capitalized during 1993, 1992 and 1991, respectively.

Intangible assets—Intangible assets, net of accumulated amortization, consist of goodwill and patents in the amounts of \$97,215 and \$47,763, respectively, at December 31, 1993 and \$102,255 and \$53,628, respectively, at December 31, 1992.

Goodwill is being amortized over 25 years on a straight-line basis. Accumulated amortization at December 31, 1993 and 1992 was \$32,131 and \$27,091, respectively.

Patents are amortized over the lives of such rights, ranging from 5 to 15 years, on a straight-line basis. Accumulated amortization at December 31, 1993 and 1992 was \$43,932 and \$37,457, respectively.

Deferred revenue—Deferred revenue arises primarily from prepayments received for products, process equipment and services.

Minority interest—Minority interest included on the accompanying consolidated balance sheet and statement of income for 1993, 1992 and 1991 represents the minority shareholder's proportionate share of the equity and net income, respectively, of a consolidated subsidiary in which the Partnership has a 70% ownership interest.

Revenue recognition—Revenue is generally recognized when a product is shipped, services are performed and royalties earned except for high credit risk customers (primarily customers located in foreign countries with unstable political or economic conditions) for which there is no reasonable basis for estimating the degree of collectability. Revenues related to high credit risk customers are recognized when payment is received. The amount due from high credit risk customers at December 31, 1993 and 1992 was \$33,008 and \$12,613, respectively.

During 1992, revenue recognition for certain customers previously considered high credit risks was changed from the cash basis to the accrual basis due to changing circumstances in the countries in which they are located. The effect of this change on the income statement in 1992 was to increase net income by approximately \$11,700.

Revenues related to major service, process equipment and instrumentation equipment contracts are accounted for primarily by the percentage of completion method whereby income is recognized based on costs incurred compared with estimated total costs of individual contracts.

Certain instrumentation equipment contracts are accounted for by the completed contract method whereby income is recognized when all costs have been incurred and the product shipped.

Contract costs for service, process equipment and instrumentation contracts include all direct material and labor costs and those indirect costs related to contract performance, such as indirect labor, supplies, repairs and depreciation costs. Selling, general and administrative costs are charged to expense as incurred. Provision for anticipated losses is made in the period in which they first become determinable. Unbilled revenue and billings in excess of revenue earned or costs incurred related to these contracts are classified as a current asset and current liability, respectively (Note 6).

Royalties—Royalty income is earned under "fully paid" and "running" royalty contracts. Fully paid contracts generally provide for fixed installment payments over a several year period based upon a purchased capacity. Fully paid royalty income is recognized on the installment basis as management believes there is no reasonable basis for estimating the degree of collectability of future payments. Unbilled amounts for fully paid contracts at December 31, 1993 and 1992 totalled \$30,475 and \$40,240, respectively. Running contracts provide for monthly, quarterly or annual payments based on customer production. Running royalty income is recorded as estimated production occurs.

## Part IV (Cont.)

### NOTES (Cont.)

Research and development—Research and development costs are charged to expense as incurred.

Translation of foreign currencies—Assets and liabilities of foreign subsidiaries are translated at the rates of exchange on the balance sheet date. Income and expenses are translated at the average rates of exchange prevailing during the period and the related translation adjustments are accumulated in partners' common equity. At December 31, 1993, 1992 and 1991, cumulative translation adjustments of (\$2,046), (\$1,976) and \$2,533, respectively, are included in partners' common equity. Foreign currency gains and losses resulting from transactions are included in income.

Statements of cash flows supplemental disclosures—During 1993, 1992 and 1991, cash paid for interest, including amounts capitalized, was \$17,390, \$20,097 and \$18,649, respectively. Income taxes paid during 1993, 1992 and 1991 amounted to \$25,031, \$24,130 and \$20,530, respectively. Income tax refunds received during 1993 totaled \$813. The effect of foreign exchange rates on cash balances was not material.

### NOTE 3 - RELATED PARTY TRANSACTIONS

In accordance with the Partnership agreement, EMSH had a preferred capital account of \$234,000 representing the difference in fair values of net assets contributed upon the formation of the Partnership. EMSH was entitled to a priority right in Partnership earnings equal to 9.5% per annum of the balance in the preferred capital account, payable quarterly. This quarterly preferred return was recorded as a transfer from partners' common equity. EMSH was also entitled to a priority right to Partnership cash upon the occurrence of a capital event which is defined as including (1) certain sales or other dispositions of Partnership assets, (2) the receipt of proceeds derived from certain involuntary conversions of Partnership property, (3) the repayment of the principal amount of certain debt owed to the Partnership, including the Allied note (Note 5), (4) certain borrowings upon the security of Partnership property, and (5) any similar events.

The principal balance of the Allied note payable to the Partnership and all accrued interest was paid in full in October of 1993. In accordance with the Partnership agreement, EMSH was entitled to a priority right to the cash. The cash was used to redeem the full balance of the preferred capital account.

The following table summarizes transactions, other than equity transactions, between UOP and the Partners or their affiliates during the years ended December 31, 1993, 1992 and 1991:

	1993		1992		1991	
	Allied	UCC	Allied	UCC	Allied	UCC
Sales to:	\$1,882	\$5,521	\$1,968	\$7,495	\$2,020	\$7,172
Purchases from:	143	648	—	1,743	114	6,589

UOP owns fifty percent interests in Nikki-Universal Co. Ltd. (Nikki) and Union Showa K.K. (Union Showa) both of which are located in Japan. UOP regularly engages in transactions with these entities in the normal course of business. The following table summarizes transactions between UOP and these affiliates during the years ended December 31, 1993, 1992 and 1991:

	1993		1992		1991	
	Nikki	Union Showa	Nikki	Union Showa	Nikki	Union Showa
Sales to:	\$ 7,833	\$1,727	\$ 4,978	\$2,731	\$6,113	\$2,054
Purchases from:	1,316	—	10,213	—	796	—

## Part IV (Cont.)

### NOTES (Cont.)

At December 31, 1993 and 1992, the amounts due from or due to the Partners and affiliates are as follows:

		1993	1992
Amounts due from affiliates:	Allied	\$ 878	\$ 6,536
	UCC	921	2,219
	Nikki	13,144	8,051
	Union Showa	221	953
		<u>\$15,164</u>	<u>\$17,759</u>
Amounts due to affiliates:	Allied	\$ 290	\$ 145
	UCC	1,385	2,555
	Nikki	36	—
	Union Showa	40	21
		<u>\$ 1,751</u>	<u>\$ 2,721</u>

#### NOTE 4 - ACCOUNTS RECEIVABLE

	December 31,	
	1993	1992
Trade accounts	\$159,625	\$163,538
Other	10,379	12,821
	<u>170,004</u>	<u>176,359</u>
Less: allowance for doubtful accounts	(13,916)	(12,740)
	<u>\$156,088</u>	<u>\$163,619</u>

The following table summarizes the activities within the allowance for doubtful accounts during the years ended December 31, 1993, 1992 and 1991:

Year ended December 31,	Balance at beginning of period	Additions			Balance at end of period
		Charged to costs and expenses	Recoveries	Write-offs	
1993	\$12,740	\$3,205	—	\$2,029	\$13,916
1992	8,229	2,513	\$2,381	383	12,740
1991	6,318	5,531	—	3,620	8,229

#### NOTE 5 - NOTE RECEIVABLE FROM ALLIED

In August 1988, UOP loaned \$234,000 to Allied. The note, which was payable in full in October 1993, required quarterly interest payments at a rate of 9.5% per annum. Allied could have prepaid the note in whole or in part at any time without penalty. The principal amount of the note and accrued interest was immediately due and payable if (a) Allied failed to pay any interest when due and such failure continued for ten days after UOP had given written notice, (b) Allied became involved in bankruptcy proceedings or defaulted on certain of its other debt; or (c) the Partnership became a corporation.

The note payable to UOP and all accrued interest was paid in full in October of 1993.

## Part IV (Cont.)

### NOTES (Cont.)

#### NOTE 6 - CONTRACTS IN PROGRESS

The components of the current asset and liability accounts included in the accompanying balance sheet related to major service, process equipment and instrumentation equipment contracts in progress as of December 31, 1993 and 1992 consist of the following:

	1993			1992		
	Percentage Completion	Completed Contract	Total	Percentage Completion	Completed Contract	Total
Costs incurred	\$ 93,766	\$6,665	\$100,431	\$149,685	\$7,802	\$157,487
Estimated earnings	58,000	—	58,000	68,612	—	68,612
	151,766	6,665	158,431	218,297	7,802	226,099
Less: Billings to date	132,215	4,326	136,541	223,613	4,458	228,071
	\$ 19,551	\$2,339	\$ 21,890	(\$ 5,316)	\$3,344	(\$ 1,972)
Included in the accompanying balance sheet under the following captions:						
Unbilled revenue under customer contracts	\$35,417	\$3,847	\$39,264	\$18,641	\$2,606	\$21,247
Billings in excess of revenue earned or costs incurred	(15,866)	(1,508)	(17,374)	(23,957)	738	(23,219)
	\$19,551	\$2,339	\$21,890	(\$ 5,316)	\$3,344	(\$ 1,972)

#### NOTE 7 - INVENTORIES

	December 31,	
	1993	1992
Raw Materials	\$39,078	\$41,875
Work in process	16,620	18,074
Finished products	36,190	40,699
Supplies and other	9,467	8,604
	101,355	109,252
Adjustment to LIFO cost basis	(10,130)	(9,270)
	\$91,225	\$99,982

Raw materials includes \$30,896 and \$33,258 of precious metals inventory of which \$22,851 and \$10,054 is leased to customers at December 31, 1993 and 1992, respectively.

## Part IV (Cont.)

### NOTES (Cont.)

#### NOTE 8 - PROPERTY, PLANT AND EQUIPMENT

The following tables summarize the activity within the property, plant and equipment accounts during the years ended December 31, 1993, 1992 and 1991, respectively:

1993 Classification	Balance at beginning of period	Additions at cost	Sales and retirements	Transfers between classifications	Foreign exchange adjustment	Balance at end of period
<b>Gross P.P.&amp;E.</b>						
Land and land improvements	\$ 19,262		\$ 3	\$ 233	(\$ 126)	\$ 19,366
Machinery and equipment	350,596	\$ 586	3,018	25,878	( 417)	373,625
Buildings	126,920	1,589	90	2,701	( 481)	130,639
Construction in progress	20,688	41,115	—	(28,812)	( 1,335)	31,656
Total	\$517,466	\$43,290	\$3,111	—	(\$ 2,359)	\$555,286

	Balance at beginning of period	Depreciation expense	Sales and retirements	Transfers between classifications	Foreign exchange adjustment	Balance at end of period
<b>Accumulated depreciation</b>						
Land and land improvements	\$ 3,533	\$ 291	\$ 2	—	(\$ 61)	\$ 3,761
Machinery and equipment	166,902	25,069	2,797	\$ 147	( 547)	188,774
Buildings	53,191	6,835	90	(147)	( 188)	59,601
Total	\$223,626	\$32,195	\$2,889	—	(\$ 796)	\$252,136
Net property, plant and equipment	\$293,840	\$11,095	\$ 222	—	(\$ 1,563)	\$303,150

1992 Classification	Balance at beginning of period	Additions at cost	Sales and retirements	Transfers between classifications	Foreign exchange adjustment	Balance at end of period
<b>Gross P.P.&amp;E.</b>						
Land and land improvements	\$ 17,569	\$ 133		\$ 1,975	(\$ 415)	\$ 19,262
Machinery and equipment	250,396	793	\$3,771	110,762	( 7,584)	350,596
Buildings	108,402	6,143	—	13,966	( 1,591)	126,920
Construction in progress	75,047	72,942	—	(126,703)	( 598)	20,688
Total	\$451,414	\$80,011	\$3,771	—	(\$10,188)	\$517,466

	Balance at beginning of period	Depreciation expense	Sales and retirements	Transfers between classifications	Foreign exchange adjustment	Balance at end of period
<b>Accumulated depreciation</b>						
Land and land improvements	\$ 3,436	\$ 232		—	(\$ 135)	\$ 3,533
Machinery and equipment	152,956	21,269	\$3,319	—	( 4,004)	166,902
Buildings	47,347	6,480	—	—	( 636)	53,191
Total	\$203,739	\$27,981	\$3,319	—	(\$ 4,775)	\$223,626
Net property, plant and equipment	\$247,675	\$52,030	\$ 452	—	(\$ 5,413)	\$293,840

## Part IV (Cont.)

### NOTES (Cont.)

1991 Classification	Balance at beginning of period	Additions at cost	Sales and retirements	Transfers between classifications	Write-off discontinued operation	Balance at end of period
<b>Gross P.P.&amp;E.</b>						
Land and land improvements	\$ 19,080			\$ 1,153	(\$ 2,664)	\$ 17,569
Machinery and equipment	341,150	\$ 1,253	\$1,435	30,972	( 121,544)	250,396
Buildings	125,885	3,116	47	5,666	( 26,218)	108,402
Construction in progress	22,175	91,862	—	(37,791)	( 1,199)	75,047
Total	\$508,290	\$96,231	\$1,482	—	(\$151,625)	\$451,414

Accumulated depreciation	Balance at beginning of period	Depreciation expense	Sales and retirements	Transfers between classifications	Write-off discontinued operation	Balance at end of period
Land and land improvements	\$ 3,761	\$ 229	—	—	(\$ 554)	\$ 3,436
Machinery and equipment	181,821	23,494	\$1,364	—	( 50,995)	152,956
Buildings	48,816	7,873	47	—	( 9,295)	47,347
Total	\$234,398	\$31,596	\$1,411	—	(\$ 60,844)	\$203,739
Net property, plant and equipment	\$273,892	\$64,635	\$ 71	—	(\$ 90,781)	\$247,675

### NOTE 9 - ACCRUED LIABILITIES

	December 31,	
	1993	1992
Employee compensation and benefits	\$ 12,727	\$ 15,203
Severance	10,413	5,000
Materials and services received	10,948	10,047
Shared royalties	17,810	17,342
Product and process guarantees	11,448	9,273
Subcontractor costs	9,179	4,465
Taxes other than taxes on income	4,115	6,211
Disposal costs (Note 12)	4,522	12,434
Accrued interest	2,323	2,572
Other	6,946	6,714
	\$ 90,431	\$ 89,261

## Part IV (Cont.)

### NOTES (Cont.)

#### NOTE 10 - DEBT

	December 31,	
	1993	1992
Short-term notes payable to banks:		
Domestic bank lines of credit	\$ —	\$ —
Foreign bank lines of credit	1,049	7,815
	<u>\$ 1,049</u>	<u>\$ 7,815</u>
Long-term debt:		
Commercial paper	\$196,055	\$186,179
Senior notes	25,000	25,000
Revolving credit agreement	37,456	—
Term note agreement (15,000 Pounds Sterling)	—	22,718
Term notes payable to banks	5,983	7,208
	<u>264,494</u>	<u>241,105</u>
Less amounts due within one year	34,168	1,043
	<u>\$230,326</u>	<u>\$240,062</u>

The Partnership maintains domestic bank lines of credit for borrowings of up to \$161,900. These facilities, used for general working capital purposes, do not require any compensating balances or fees and may be withdrawn at the option of the lenders at any time. There were no outstanding borrowings under these facilities at December 31, 1993 or at December 31, 1992.

The Partnership also maintains various foreign bank lines of credit for borrowings, in the aggregate, of up to \$27,500 of which \$1,049 and \$7,815 was outstanding at December 31, 1993 and 1992, respectively. The annual interest rate on these borrowings at December 31, 1993 was 10.50%, and at December 31, 1992 was 15.25%. Commitment fees, in the aggregate, are not significant and compensating balances are not required on these credit facilities.

Management intends to renew commercial paper obligations at maturity for the foreseeable future. Accordingly, \$162,544 and \$186,179 of outstanding commercial paper has been classified as long-term debt at December 31, 1993 and 1992, respectively, based on the unused committed amount from the revolving credit agreement. Interest rates on commercial paper outstanding at December 31, 1993 ranged from 3.457% to 3.629%.

The Partnership maintains revolving credit agreements with a group of banks for \$200,000 (which expires in November 1996) and \$100,000 (which expires in November 1994). The agreements allow for borrowings in various currencies. Interest rates are based upon various market rates and will vary based on the Partnership's commercial paper ratings. At December 31, 1993, \$37,456 (5,000 U.S. Dollars, 15,490 Pounds Sterling and 16,600,000 Lire) was outstanding under the revolving credit agreements at interest rates ranging from 3.56% to 8.75%. There were no outstanding borrowings under either facility at December 31, 1992. The provisions of the \$200,000 agreement require a commitment fee ranging from .0625% to .125% on the unused portion of the aggregate credit amount and a facility fee ranging between .125% and .25% on the amount of each banks' commitment under the agreement. The \$100,000 agreement requires a commitment fee ranging from .125% to .25% on the unused portion of the aggregate credit amount under the agreement. During 1993, 1992 and 1991, fees related to the revolving credit agreements aggregated \$766, \$693 and \$588, respectively, and were included in interest expense.

## Part IV (Cont.)

### NOTES (Cont.)

The revolving credit agreements contain various warranties and restrictive covenants that must be complied with on a continuing basis. Default on certain warranties or covenants could accelerate the maturity of any borrowings outstanding under the agreements. The most restrictive covenants require a minimum level of consolidated adjusted net worth and that the Partnership maintain certain financial ratios. At December 31, 1993, consolidated adjusted net worth, as defined by the agreements, exceeded the required minimum by \$16,381.

In January 1992, the Partnership issued senior notes in the amount of \$25,000 which are due in January 1997. The senior notes bear interest at an annual rate of 7.32%, payable semiannually. Under the note agreement, the Partnership is required to maintain certain financial ratios and a minimum level of consolidated adjusted net worth. At December 31, 1993, consolidated adjusted net worth, as defined in the agreement, exceeded the minimum required by \$14,335.

The term note agreement for 15,000 Pounds Sterling provided that the Partnership could select among interest rate options based on the United Kingdom base rate plus .50% or Sterling LIBOR plus .50%. The principal balance of the term note payable and all accrued interest were paid in full in December of 1993.

At December 31, 1993, term notes payable to banks consisted of foreign borrowings (12,893 Chinese Renminbi, 1,500 Canadian Dollars, 30,271 Japanese Yen and 4,021,680 Italian Lire) at interest rates ranging from 3.80% to 10.36% which are due at various dates through the year 2003. At December 31, 1992, term notes payable to banks consisted of foreign borrowings (17,421 Chinese Renminbi, 2,000 Canadian Dollars, and 3,920,054 Italian Lire) at interest rates ranging from 3.80% to 10.36% which are due at various dates through the year 2003.

Scheduled maturities of long-term debt at December 31, 1993 are:

Year	
1994	\$ 34,168
1995	3,268
1996	200,311
1997	25,597
1998	299
Thereafter	851
	<hr/> \$264,494

The Partnership has interest rate swaps expiring at various dates from 1994 to 1999 under which the variable rate of interest on \$90,000 at December 31, 1993 and 1992 of long-term debt is converted to a fixed weighted average interest rate of 7.12% and 7.42%, respectively.

The estimated fair value of the Partnership's total debt approximates its carrying value. The fair value of the Partnership's total debt was estimated based on current interest rates offered to the Partnership for debt of the same remaining maturities. The fair value of the Partnership's interest rate swaps is the estimated amount that the Partnership would pay to terminate the agreements at December 31, 1993 and 1992, taking into account current interest rates. The estimated fair value of the interest rate swaps approximated \$7,900 and \$8,000 at December 31, 1993 and 1992, respectively.

## Part IV (Cont.)

### NOTES (Cont.)

#### NOTE 11 - FINANCIAL INFORMATION BY GEOGRAPHIC AREA

The following table summarizes the Partnership's financial information by geographic area for the years ended December 31, 1993, 1992 and 1991, respectively:

1993	United States	Europe	Asia/Pacific	Other	Eliminations	Consolidated
Revenues:						
Unaffiliated customers	\$634,868	\$156,214	\$21,644	\$5,645		\$818,371
Inter-geographic	93,510	28,012	1,630	—	(\$123,152)	—
Total Revenues	\$728,378	\$184,226	\$23,274	\$5,645	(\$123,152)	\$818,371

Income from continuing operations*	\$120,963	\$21,201	\$ 1,105	\$ 421	\$14,411	\$158,101
Net identifiable assets (liabilities)	\$260,900	\$18,081	\$ 6,656	\$ 606	(\$ 4,522)	\$281,721

	Europe	Asia/Pacific	Latin America	Africa/Middle East	Other	Total
United States export revenues (included in United States revenues above)	\$39,926	\$161,785	\$41,432	\$52,282	\$25,919	\$321,344

1992	United States	Europe	Asia/Pacific	Other	Eliminations	Consolidated
Revenues:						
Unaffiliated customers	\$645,353	\$167,458	\$15,452	\$5,384	—	\$833,647
Inter-geographic	80,335	37,015	828	—	(\$118,178)	—
Total Revenues	\$725,688	\$204,473	\$16,280	\$5,384	(\$118,178)	\$833,647

Income from continuing operations*	\$ 99,010	\$ 19,988	\$ 890	\$ 588	\$ 25,878	\$146,354
Net identifiable assets (liabilities)*	\$277,515	\$ 24,279	\$ 5,554	\$ (666)	\$247,469	\$554,151

	Europe	Asia/Pacific	Latin America	Africa/Middle East	Other	Total
United States export revenues (included in United States revenues above)	\$61,395	\$168,819	\$50,427	\$43,358	\$27,215	\$351,214

## Part IV (Cont.)

### NOTES (Cont.)

1991	United States	Europe	Asia/ Pacific	Other	Eliminations	Consolidated
Revenues:						
Unaffiliated customers	\$602,425	\$157,571	\$19,136	\$6,944	—	\$786,076
Inter-geographic	109,394	17,046	1,702	—	(\$128,142)	—
Total Revenues	\$711,819	\$174,617	\$20,838	\$6,944	(\$128,142)	\$786,076

Income from continuing operations	\$102,899	\$ 20,526	\$ 1,067	\$ 353	\$ 20,371	\$145,216
Net identifiable assets (liabilities)*	\$338,877	\$ 13,433	\$ 5,637	(\$1,195)	\$235,317	\$592,069

	Europe	Asia/ Pacific	Latin America	Africa/ Middle East	Other	Total
United States export revenues (included in United States revenues above)	\$56,886	\$120,717	\$29,763	\$36,423	\$33,748	\$277,537

\*Eliminations relate primarily to the note receivable from Allied at December 31, 1993 and 1992 and interest income earned thereon for each of the three years ended December 31, 1993 (Note 5).

No single customer accounted for 10 percent or more of total revenues in 1993, 1992 or 1991.

Inter-geographic revenues are derived as arms-length transactions and are eliminated to arrive at consolidated revenues.

### NOTE 12 - DISCONTINUED OPERATIONS

During 1991, the Partnership established a formal plan to discontinue the operations of Katalistiks. Accordingly, the 1991 consolidated financial statements have been reclassified to report separately the assets and operating results of Katalistiks as a discontinued operation.

The Partnership shut down the Katalistiks operations in April 1992 and during 1993 sold the majority of remaining assets for \$22,300.

The estimated loss on disposal in the 1991 income statement included a provision of \$2,700 for operating losses during the phase-out period. The actual operating losses of the discontinued operation during 1993 and 1992 were charged against the reserve established in 1991. Revenues generated by the discontinued operation totaled \$3,078, \$46,287 and \$101,241 for the years ended December 31, 1993, 1992 and 1991, respectively.

## Part IV (Cont.)

### NOTES (Cont.)

#### NOTE 13 - LEASE COMMITMENTS

Future minimum lease payments under operating leases having initial or remaining noncancellable lease terms in excess of one year as of December 31, 1993 are as follows:

Year	
1994	\$ 16,284
1995	14,903
1996	14,588
1997	14,876
1998	4,405
Thereafter	42,382
	<u>\$107,438</u>

Included in the future minimum lease payments are amounts payable to UCC for each of the years 1994 through 1998 and thereafter totaling \$9,414, \$9,781, \$10,182, \$10,611, \$717 and \$753 respectively, for rental of facilities, equipment and services.

Rent expense of \$17,191, \$18,538 and \$18,789 was recognized during 1993, 1992 and 1991, respectively, which includes \$9,341, \$9,088 and \$8,774, respectively, for rental of facilities, equipment and services from UCC.

#### NOTE 14 - TAXES ON INCOME

The formation of UOP has an effective date of August 22, 1988 for U.S. federal and state income tax purposes. The Partners have indemnified UOP for all federal and state and certain foreign income tax liabilities related to periods prior to August 22, 1988 and, accordingly, such liabilities have been excluded from the consolidated financial statements.

As a partnership, UOP is not generally subject to federal income taxes. The federal income tax provision in the accompanying financial statements represents taxes of certain domestic subsidiaries of UOP which file a federal income tax return as a separate taxpayer. The foreign income tax provision represents income taxes of the Partnership's foreign subsidiaries. Foreign withholding taxes represent taxes assessed by certain foreign taxing authorities for royalty income and fees for services which are performed in those foreign countries. State taxes are provided at rates applicable in those states where the Partnership and certain domestic subsidiaries are subject to such taxes.

Effective January 1, 1993, the Partnership adopted the provisions of Statement of Financial Accounting Standards No. 109, "Accounting for Income Taxes." FAS 109 uses the liability method for computing deferred income taxes. Changes in tax rates and laws are reflected in income in the period such changes are enacted. The effect on deferred income taxes of the one percent increase in the 1993 federal income tax rate was not material.

## Part IV (Cont.)

### NOTES (Cont.)

Income from continuing operations before income taxes and minority interest for the years ended December 31, 1993, 1992 and 1991 consist of the following:

	1993	1992	1991
United States	\$150,707	\$139,578	\$131,359
Foreign	33,603	30,405	30,212
	\$184,310	\$169,983	\$161,571

Taxes on income for the years ended December 31, 1993, 1992 and 1991 consist of the following:

	1993	1992	1991
<b>Current tax expense</b>			
Foreign	\$ 10,291	\$ 10,317	\$ 8,005
Foreign withholding	10,550	9,454	4,569
Federal	4,051	4,135	2,348
State	11	24	28
	24,903	23,930	14,950
Deferred tax expense, primarily foreign	984	( 622)	1,017
Total Provision	\$ 25,887	\$ 23,308	\$ 15,967

## Part IV (Cont.)

### NOTES (Cont.)

The components of the net deferred tax liability at December 31, 1993 is as follows:

	1993
Net properties	\$2,756
Inventory	421
Exchange gains and losses	254
Income on long-term contracts	888
Royalty prepayments	429
Other	479
Total deferred tax liabilities	5,227
Accounts receivable	\$2,394
Net properties	109
Foreign goodwill	516
Other	374
Foreign tax credits	4,598
Valuation allowance	(4,598)
Total deferred tax assets	3,393
Net deferred tax liability	<u>\$1,834</u>

The valuation allowance relates to foreign tax credit carryforwards that expire over the period from 1994 through 1998 and are not expected to be utilized.

In 1992 and 1991, the Partnership provided deferred income taxes for certain revenue and expense items reported in different years for financial reporting and income tax purposes. The tax effects of timing differences in 1992 and 1991 were not material.

#### NOTE 15 - EMPLOYEE BENEFITS

**Pension Plans**—The Partnership contributes to the various pension plans that it sponsors. The plans provide retirement benefits for substantially all employees. Under the plans, retirement benefits are primarily a function of both years of service and the level of compensation for a specified number of years depending on the plan. It is the Partnership's policy to fund at least the minimum required by ERISA for its U.S. plan and the amounts prescribed to be funded by actuaries for foreign plans.

## Part IV (Cont.)

### NOTES (Cont.)

EMSH and CAPS provide for their respective share of the actuarial present value of projected benefits at August 22, 1988 of all former UOP and CAPS domestic employees covered under the defined benefit plans.

Total periodic pension cost reflects the net periodic pension cost amount determined for the Partnership's U.S. plan and its significant foreign plans and contributions for certain other foreign plans. Total periodic pension cost was \$10,301, \$9,813 and \$10,328 in 1993, 1992 and 1991, respectively.

Net periodic pension cost for the Partnership's U.S. plan and significant foreign plans in 1993, 1992 and 1991 include the following components:

	Year ended December 31,					
	1993		1992		1991	
	U.S.	Foreign	U.S.	Foreign	U.S.	Foreign
Current year service cost (benefits earned during the period)	\$8,402	\$1,508	\$7,976	\$1,650	\$7,393	\$2,101
Interest cost on projected benefit obligation	15,319	1,313	13,872	1,182	12,805	1,370
Actual return on plan assets	(22,441)	(1,717)	(9,578)	(1,185)	(15,596)	(404)
Deferred gains (losses) on plan assets	6,427	556	(5,084)	101	2,466	(670)
Amortization of:						
Unrecognized prior service cost	540		540		540	
Unrecognized net transition obligation		84		96		111
Unrecognized net loss		43		40		49
Net periodic pension expense	\$8,247	\$1,787	\$7,726	\$1,884	\$7,608	\$2,557

## Part IV (Cont.)

### NOTES (Cont.)

The following table sets forth the funded status of the Partnership's U.S. pension plan and its significant foreign plans as of December 31, 1993 and 1992 based on projected actuarial estimates where data is not yet available as of such date:

	1993		1992	
	U.S.	Foreign	U.S.	Foreign
Actuarial present value of benefit obligations:				
Vested	(\$143,295)	(\$11,590)	(\$120,492)	(\$10,218)
Non-vested	(20,360)	(124)	(16,764)	(4)
Accumulated benefit obligation	(163,655)	(11,714)	(137,256)	(10,222)
Effect of projected future salary increases	(51,548)	(5,936)	(44,441)	(5,212)
Projected benefit obligation for service rendered to date	(215,203)	(17,650)	(181,697)	(15,434)
Plan assets at fair value	193,202	15,613	174,368	12,863
Projected benefit obligation in excess of plan assets	(22,001)	(2,037)	(7,329)	(2,571)
Unrecognized net (gain) loss	3,499	206	(8,194)	795
Unrecognized prior service cost not yet recognized in net periodic pension cost	4,321	—	4,861	—
Unrecognized net transition obligation	—	1,191	—	1,380
Pension liability recognized in the consolidated balance sheet	(\$ 14,181)	(\$ 640)	(\$ 10,622)	(\$ 396)

In determining the projected benefit obligation of the U.S. pension plan, a weighted average assumed discount rate of 7.5% and a weighted-average rate of increase in future compensation levels of 5.25% was used in 1993. A weighted-average assumed discount rate of 8.5% and a weighted-average rate of increase in future compensation levels of 6.25% was used in 1992 and 1991. The expected weighted-average long-term rate of return on assets used in determining net periodic pension cost was 9.5% in 1993, 1992 and 1991. Unrecognized prior service cost is amortized using an alternative straight-line method over the average remaining service period of active employees.

For significant foreign pension plans, assumed discount rates ranging from 6% to 9% and rates of increase in future compensation levels ranging from 4% to 8.5% were used in determining the projected benefit obligation in 1993, 1992 and 1991. Expected long-term rates of return on assets used in determining net periodic pension cost ranged from 7% to 9% in 1993, 1992 and 1991.

The U.S. pension plan's assets consist primarily of listed common stocks and bonds plus cash equivalents, but exclude the value of any insurance company contracts whose guaranteed benefits are excluded in the calculation of the projected benefit obligation.

The significant foreign pension plans' assets consist primarily of locally issued securities, but exclude the value of any insurance company contracts whose guaranteed benefits are excluded in the calculation of the projected benefit obligation.

**Postretirement Benefits**—The Partnership also provides postretirement health care and life insurance benefits for substantially all employees. Employees may become eligible for those benefits if they reach retirement age while working for the Partnership. The liabilities for post retirement benefits related to former employees of businesses contributed to the Partnership who retired prior to August 22, 1988 were retained directly by or will be funded by the Partners. The plan requires that covered retirees pay one-eighth of their health care premiums until age 65, and is non-contributory thereafter. Life insurance benefits are provided by the Partnership for substantially all employees.

## Part IV (Cont.)

### NOTES (Cont.)

Effective January 1, 1992, the Partnership adopted the provisions of Statement of Financial Accounting Standards No. 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions" to account for its postretirement benefits plan. FAS 106 requires that the cost of providing postretirement benefits be accrued over the active service period of employees. In prior years, the cost of providing these benefits, which was not material, was expensed as incurred. At January 1, 1992, the actuarial present value of the accumulated postretirement benefit obligation of \$37,448 was recognized immediately as expense in the income statement as the cumulative effect of a change in accounting principle.

In addition to the one-time cumulative effect adjustment, the components of net periodic postretirement benefit cost for 1993 and 1992 respectively, are as follows:

	1993	1992
Service cost for benefits earned during the period	\$1,743	\$1,568
Interest cost on accumulated benefit obligation	3,473	3,123
Net periodic postretirement benefit cost	\$5,216	\$4,691

The actuarial and recorded liability for postretirement benefits, none of which has been funded, is as follows at December 31, 1993 and 1992 respectively:

	1993	1992
Accumulated benefit obligation:		
Retirees	\$ 9,299	\$ 5,076
Fully eligible active plan participants	24,577	18,621
Other active plan participants	20,087	17,759
Total accumulated benefit obligation	53,963	41,456
Unrecognized net loss	8,391	—
Accrued postretirement benefit cost (Other noncurrent liability)	\$45,572	\$41,456

The health care cost trend used to determine the accumulated postretirement benefit obligation assumed an increase in health care premiums prior to age 65 of 9.0% in 1994 and after age 65 of 14.0% in 1994, gradually decreasing to a rate of 4.0% in the year 2009 and thereafter. The effect on the present value of the accumulated postretirement benefit obligation at December 31, 1993 of a 1% increase each year in the health care cost trend rates used would result in an increase of \$769 in 1993 expense and \$1,563 in the accumulated postretirement benefit obligation.

Assumed discount rates of 7.5% and 8.5% were used to measure the accumulated postretirement benefit obligation in 1993 and 1992, respectively.

**Other Employee Benefits**—Most U.S. employees also participate in a Partnership sponsored contributory trustee savings plan. Partnership contributions made under the plan are based on the amount contributed by employees as related to their service supplemented by Partnership contributions related to profits. Total Partnership cost in 1993, 1992 and 1991 amounted to \$7,673, \$7,808 and \$7,414.

## Part IV (Cont.)

### NOTES (Cont.)

The Partnership maintains a long-term incentive plan for its key employees. The plan provides for the payment of incentive awards based on the attainment of certain cumulative performance standards over a three year period. Award payments in the amount of \$2,203 were made in 1993 for the three year plan period ended December 31, 1991. As of December 31, 1993, and 1992, \$5,180 and \$3,740, respectively, has been accrued related to the three-year performance period ending December 31, 1994, for which payments will be made in equal installments in 1995 and 1996.

**Other Postemployment Benefits**—During 1993, the Partnership adopted the provisions of Statement of Financial Accounting Standards No. 112, "Employers' Accounting for Postemployment Benefits." FAS 112 requires that the cost of providing compensation and benefits to former or inactive employees after employment but before retirement be accrued during the period of active service by the employees. In 1993, the unfunded obligation of \$22,000, related primarily to severance benefits, was recognized immediately as expense in the income statement as the cumulative effect of a change in accounting principle.

#### NOTE 16 - COMMITMENTS AND CONTINGENCIES

The Partnership is a party to a number of lawsuits and claims (some of which are for substantial amounts) arising out of the conduct of its business, including those relating to commercial transactions, product liability, environmental, safety and health matters. While the ultimate results of lawsuits or other proceedings cannot be predicted with certainty, management does not expect that these matters, net of insurance reimbursements, will have a material adverse effect on the consolidated financial position or results of operations of the Partnership.

The Partnership uses forward foreign currency exchange contracts to hedge certain commitments related to the sale and purchase of products and services to and from various foreign customers. At December 31, 1993, the Partnership had contracts outstanding (maturing in 1994 and 1995) for the purchase of \$280 of Japanese Yen and \$1,431 of Italian Lire and for the sale of \$3,503 of British Pounds Sterling. Gains and losses on the forward contracts are deferred and recognized as transaction gains or losses when the contracts close.

At December 31, 1993, the Partnership had standby letters of credit and bank guarantees outstanding totalling \$43,042, which primarily guarantee performance by the Partnership on various contracts for products and services.

#### NOTE 17 - REPAIRS AND MAINTENANCE EXPENSES

Repairs and maintenance expenses for the years ended December 31, 1993, 1992 and 1991 totalled \$5,018, \$5,293 and \$4,577, respectively.

## Signatures

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Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the corporation has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Union Carbide Corporation

March 25, 1994

John K. Wulff

*Vice-President, Controller and Principal Accounting Officer*

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Corporation and in the capacities indicated on March 25, 1994.

Robert D. Kennedy  
*Director, Chairman of the Board and  
Chief Executive Officer*

John J. Creedon  
*Director*

C. Peter McColough  
*Director*

William H. Joyce  
*Director, President and  
Chief Operating Officer*

C. Fred Fetterolf  
*Director*

Rozanne L. Ridgway  
*Director*

Joseph E. Geoghan  
*Director, Vice-President, General Counsel  
and Secretary*

James M. Hester  
*Director*

William S. Sneath  
*Director*

Gilbert E. Playford  
*Vice-President  
and Principal Financial Officer*

Vernon E. Jordan, Jr.  
*Director*

John K. Wulff  
*Vice-President, Controller and  
Principal Accounting Officer*

Ronald L. Kuehn, Jr.  
*Director*

## Exhibit Index

### Exhibit No.

- 3.1 Restated Certificate of Incorporation as filed November 16, 1990 (See Exhibit 3.1 of the Corporation's 1992 Form 10-K).
- 3.2 By-Laws of the Corporation as amended June 26, 1989 (See Exhibit 3.2 of the Corporation's 1989 Form 10-K).
- 4.1 Indenture dated as of August 1, 1992 among UCC&P, the Corporation and Chemical Bank, Trustee, for debt securities issued and that may be issued (See Exhibit 4.1.1 of the Corporation's Form S-3 filed on December 9, 1992, File No. 33-55560).
- 4.2 The Corporation will furnish to the Commission upon request any other debt instrument referred to in item 601(b)(4)(iii)(A) of Regulation S-K.
- 4.3 Rights Agreement, dated as of July 26, 1989, as amended and restated as of May 27, 1992, between the Corporation and Chemical Bank (successor to Manufacturers Hanover Trust Company), as Rights Agent (See Exhibit 4(a) of the Corporation's Form 8-A dated July 27, 1989, as amended by Form 8 dated June 1, 1992).
- 7 Opinion of Kelley Drye & Warren regarding liquidation preference, dated February 11, 1993 (See Exhibit 7 of the Corporation's 1992 10-K).
- 10.1 Credit Agreement dated as of April 15, 1992 among the Corporation, UCC&P, the banks listed therein, Morgan Guaranty Trust Company of New York, Chemical Bank and Credit Suisse, as co-agents, and Chemical Bank, as administrative agent and auction agent (See Exhibit 8 of the Corporation's Form 8-K dated June 12, 1992).
- 10.2 Indemnity Agreement dated as of July 25, 1986, between the Corporation and Robert D. Kennedy. The Indemnity Agreement filed with the Commission is substantially identical in all material respects, except as to the parties thereto and dates thereof, with Indemnity Agreements between the Corporation and each other person who is a director or officer of the Corporation (See Exhibit 10.2 of the Corporation's 1992 Form 10-K).
- 10.3 Agreement, dated as of October 2, 1986, among UCC&P, GAF Corporation, GAF Chemicals Corporation, Jay & Company, Inc., Mayfair Investments, Inc. and Samuel J. Heyman. (See Exhibit 10.3 of the Corporation's 1992 Form 10-K).
- 10.4 Transfer Agreement dated as of January 1, 1989 between UCC&P and Praxair, Inc. ("Praxair") (formerly named "Union Carbide Industrial Gases Inc."), as amended (See Exhibits 10.06, 10.07, 10.08 and 10.09 of Praxair's Form 10 dated March 10, 1992, as amended by Form 8s dated May 22, 1992, June 9, 1992 and June 12, 1992 ("Praxair Form 10")).
- 10.5 Transfer Agreement dated as of January 1, 1989 between UCC&P and Union Carbide Coatings Service Corporation ("UCCS"), as amended (See Exhibits 10.14, 10.15 and 10.16 of Praxair Form 10).
- 10.6 Amended and Restated Realignment Indemnification Agreement dated as of June 4, 1992 among the Corporation, UCC&P, Praxair, UCAR Carbon Company Inc. ("UCAR") and UCCS (See Exhibit 10.23 of Praxair Form 10).
- 10.7 Environmental Management, Services and Liabilities Allocation Agreement dated as of January 1, 1990 among the Corporation, UCC&P, UCAR, Praxair, and UCCS, as amended (See Exhibits 10.13 and 10.22 of Praxair Form 10).
- 10.8 Danbury Lease Agreements dated as of January 1, 1989 between UCC&P and Praxair, as amended (See Exhibit 10.26 of Praxair Form 10).
- 10.9 Tax Disaffiliation Agreement dated as of June 4, 1992 between the Corporation and Praxair (See Exhibit 10.20 of Praxair Form 10).

## Exhibit Index (Cont.)

### Exhibit No.

- 10.10 Employee Benefits Agreement dated as of June 4, 1992 between the Corporation and Praxair (See Exhibit 10.25 of Praxair Form 10).
- 10.11 Danbury Lease-Related Services Agreement dated as of June 4, 1992 among the Corporation, UCC&P and Praxair (See Exhibit 10.24 of Praxair Form 10).
- 10.12 Additional Provisions Agreement dated as of June 4, 1992 between the Corporation, UCC&P, Praxair and UCCS (See Exhibit 10.21 of Praxair Form 10).
- 10.13.1\* 1984 Union Carbide Stock Option Plan (See Exhibit 10.7.1 of the Corporation's 1991 Form 10-K).
- 10.13.2\* Resolutions adopted by the Board of Directors of the Corporation on January 22, 1986, with respect to the 1984 Union Carbide Stock Option Plan (See Exhibit 10.7.2 of the Corporation's 1991 Form 10-K).
- 10.13.3\* Resolutions adopted by the Board of Directors of the Corporation on April 17, 1986, with respect to the 1984 Union Carbide Stock Option Plan (See Exhibit 10.7.3 of the Corporation's 1991 Form 10-K).
- 10.13.4\* Amendment to the 1984 Union Carbide Stock Option Plan effective June 1, 1989 (See Exhibit 10.9.7 of the Corporation's 1989 Form 10-K).
- 10.14.1\* 1988 Union Carbide Long-Term Incentive Plan.
- 10.14.2\* Amendment to the 1988 Union Carbide Long-Term Incentive Plan effective June 1, 1989 (See Exhibit 10.16.2 of the Corporation's 1989 Form 10-K).
- 10.14.3 Amendment to the 1988 Union Carbide Long-Term Incentive Plan effective August 1, 1989 (See Exhibit 10.16.3 of the Corporation's 1989 Form 10-K).
- 10.14.4 Resolutions adopted by the Board of Directors of the Corporation on February 26, 1992 with respect to stock options granted under the 1984 Union Carbide Stock Option Plan and the 1988 Union Carbide Long-Term Incentive Plan (See Exhibit 10.14.4 of the Corporation's 1992 Form 10-K).
- 10.14.5 Resolutions adopted by the Compensation and Management Development Committee of the Board of Directors of the Corporation on June 30, 1992, with respect to stock options granted under the 1984 Union Carbide Stock Option Plan and the 1988 Union Carbide Long-Term Incentive Plan (See Exhibit 10.14.5 of the Corporation's 1992 Form 10-K).
- 10.15.1\* 1983 Union Carbide Bonus Deferral Program (See Exhibit 10.8.1 of the Corporation's 1991 Form 10-K).
- 10.15.2 Amendment to the 1983 Union Carbide Bonus Deferral Program effective January 1, 1992 (See Exhibit 10.15.2 of the Corporation's 1992 Form 10-K).
- 10.16.1\* 1984 Union Carbide Cash Bonus Deferral Program (See Exhibit 10.9.1 of the Corporation's 1991 Form 10-K).
- 10.16.2\* Amendment to the 1984 Union Carbide Cash Bonus Deferral Program effective January 1, 1986 (See Exhibit 10.9.2 of the Corporation's 1991 Form 10-K).
- 10.16.3 Amendment to the 1984 Union Carbide Cash Bonus Deferral Program effective January 1, 1992 (See Exhibit 10.16.3 of the Corporation's 1992 Form 10-K).

## Exhibit Index (Cont.)

### Exhibit No.

- 10.17.1\* Grantor Trust Agreement for the Equalization Benefit Plan for Participants of the Retirement Program Plan for Employees of Union Carbide Corporation and its Participating Subsidiary Companies and the Supplemental Retirement Income Plan (See Exhibit 10.10.1 of the Corporation's 1991 Form 10-K).
- 10.17.2\* Amendment to Grantor Trust Agreement for the Equalization Benefit Plan for Participants of the Retirement Program Plan for Employees of Union Carbide Corporation and its Participating Subsidiary Companies and the Supplemental Retirement Income Plan.
- 10.18\* Equalization Benefit Plan for Participants of the Retirement Program Plan for Employees of Union Carbide Corporation and its Participating Subsidiary Companies (See Exhibit 10.11 of the Corporation's 1991 Form 10-K).
- 10.19.1\* Supplemental Retirement Income Plan (See Exhibit 10.12.1 of the Corporation's 1991 Form 10-K).
- 10.19.2\* Amendment to Supplemental Retirement Income Plan effective January 1, 1989.
- 10.20.1 1992 Stock Compensation Plan for Non-Employee Directors of Union Carbide Corporation (See Appendix A of the proxy statement for the annual meeting of the stockholders held on April 22, 1992).
- 10.20.2 Resolution adopted by the Board of Directors of the Corporation on June 30, 1992 with respect to the 1992 Stock Compensation Plan for Non-Employee Directors of Union Carbide Corporation (See Exhibit 10.20.2 of the Corporation's 1992 Form 10-K).
- 10.21.1 Severance Compensation Agreement, dated September 26, 1989, between the Corporation and Gilbert E. Playford. The Severance Compensation Agreement filed with the Commission is substantially identical in all material aspects, except as to the parties thereto and dates thereof, with Agreements between the Corporation and other officers and employees of the Corporation (See Exhibit 10.18 of the Corporation's 1989 Form 10-K).
- 10.21.2 Amendment of Severance Compensation Agreement, dated September 24, 1993, between the Corporation and Gilbert E. Playford. Identical amendments, except as to the parties thereto, were entered into between the Corporation and other officers and employees of the Corporation.
- 10.22\* Resolution adopted by the Board of Directors of the Corporation on November 30, 1988 with respect to an executive life insurance program for officers and certain other employees.
- 10.23.1\* 1989 Union Carbide Variable Compensation Plan (See Exhibit 10.17 of the Corporation's 1991 Form 10-K).
- 10.23.2 1994 Union Carbide Variable Compensation Plan.
- 10.24.1 Union Carbide Corporation Benefits Protection Trust (See Exhibit 10.25 of the Corporation's 1989 Form 10-K).
- 10.24.2 Amendment to the Union Carbide Corporation Benefits Protection Trust effective October 23, 1991 (See Exhibit 10.18.2 of the Corporation's 1991 Form 10-K).
- 10.25\* Resolutions adopted by the Board of Directors of the Corporation on February 24, 1988, with respect to the purchase of annuities to cover liabilities of the Corporation under the Equalization Benefit Plan for Participants of the Retirement Program Plan for Employees of Union Carbide Corporation and its Participating Subsidiary Companies and the Supplemental Retirement Income Plan (See Exhibit 10.26 of the Corporation's 1989 Form 10-K).
- 10.26\* Resolutions adopted by the Board of Directors of the Corporation on June 28, 1989, with respect to the purchase of annuities to cover liabilities of the Corporation under the Supplemental Retirement Income Plan (See Exhibit 10.27 of the Corporation's 1989 Form 10-K).

## Exhibit Index (Cont.)

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### Exhibit No.

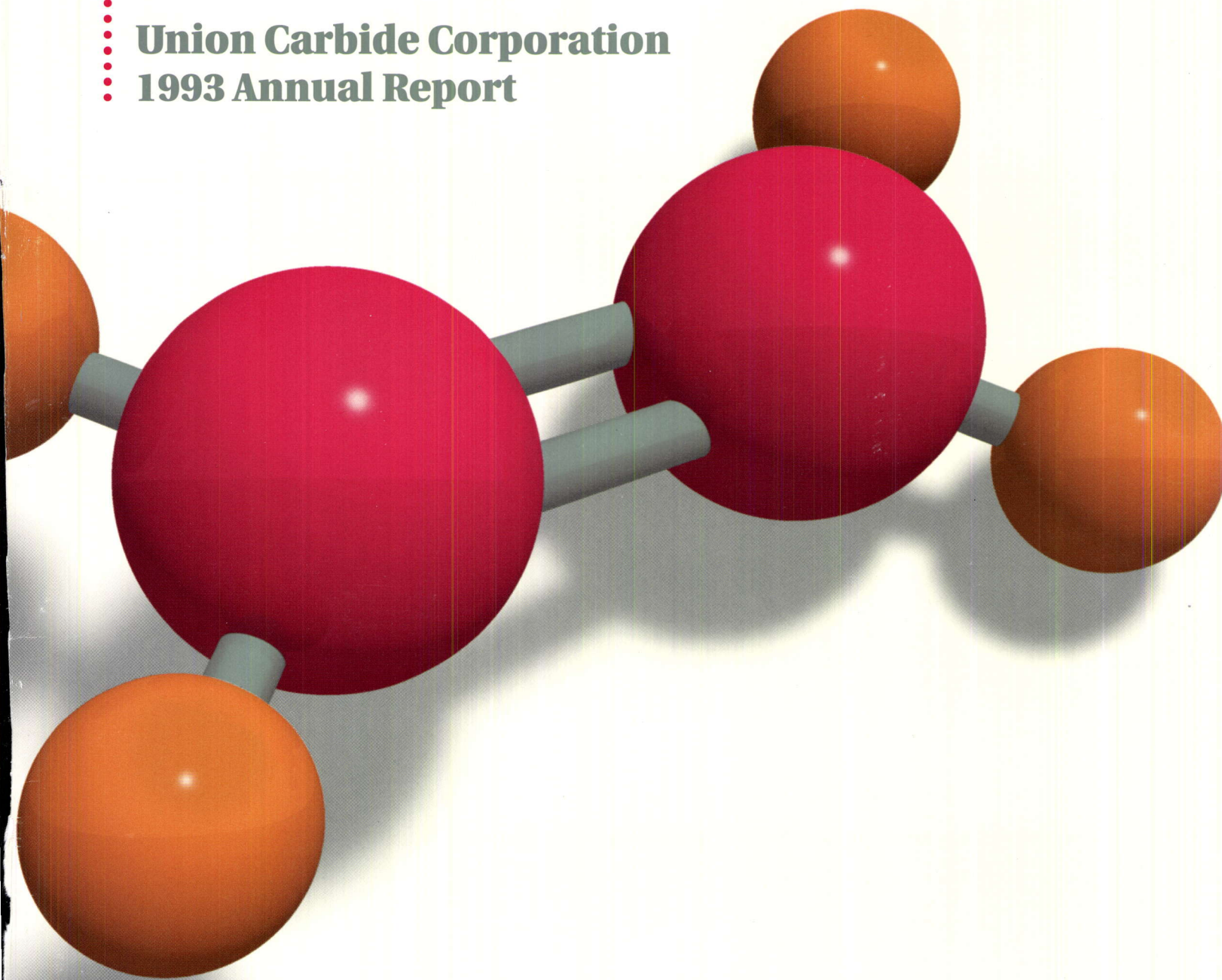
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|-------|---|
| 10.27 | Union Carbide Corporation Non-Employee Directors' Retirement Plan (See Exhibit 10.24 of the Corporation's 1990 Form 10-K).  |
| 11    | Computation of Earnings per Share For The Five Years Ended December 31, 1993.   |
| 13    | The Corporation's 1993 annual report to stockholders (such report, except for those portions which are expressly referred to in this Form 10-K, is furnished for the information of the Commission and is not deemed "filed" as part of the Form 10-K). |
| 21    | Subsidiaries of the Corporation.  |
| 23.1  | Consent of KPMG Peat Marwick.   |
| 23.2  | Consent of Price Waterhouse.  |

\* The obligations of UCC&P hereunder were assumed by the Corporation as of July 1, 1989.

Wherever an exhibit listed above refers to another exhibit or document (e.g., "See Exhibit 6 of...."), that exhibit or document is incorporated herein by such reference.

A copy of any exhibit listed above may be obtained on written request to the Secretary's Department, Union Carbide Corporation, Section E-4, 39 Old Ridgebury Road, Danbury, CT 06817-0001. The charge for furnishing any exhibit is 25 cents per page plus mailing costs.

**Union Carbide Corporation**  
**1993 Annual Report**



Making the most  
of our business strengths  
in chemicals and polymers.

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## On The Cover

The ethylene molecule is the basic building block from which Union Carbide develops and manufactures hundreds of products. These include polyethylene, the world's most widely used plastic, and ethylene glycol, used for antifreeze and polyester fiber, resin and film.

## A Chemical Glossary

- > **Monomer** — a reactive chemical that can be converted into a polymer. For example, ethylene is a monomer that is made into polyethylene.
- > **Polymer** — chain or network made up of many monomer units, such as ethylene. All plastics are polymers.
- > **Olefins** — generic name for ethylene, propylene and other unsaturated hydrocarbons made from components of crude oil or natural gas. Olefins are the starting material from which most of Union Carbide's chemical products are made.
- > **Ethylene Oxide** — a chemical made from ethylene and oxygen. Combines with other chemicals to produce a wide range of products, such as ethylene glycol used in antifreeze and polyester fiber, and surfactants for detergents and cleaning products.
- > **Ethylene Glycol** — a chemical made from ethylene oxide and water.
- > **Polyethylene** — the world's most widely used plastic, made by reacting ethylene and other olefins to form polymers. Union Carbide uses its low-pressure UNIPOL Process technology to make most of its polyethylene.
- > **Solvents** — liquid chemicals used to dissolve other chemicals. For example, butyl alcohol and related solvents are manufactured, starting from propylene, using Union Carbide's low-pressure Oxo process.



# Financial Highlights

Dollar amounts in millions (except per share figures)	1993	1992
<b>For the Year</b>		
Net sales .....	\$ 4,640	\$ 4,872
Income available to common stockholders from continuing operations .....	155	107
Per common share – Primary .....	1.00	0.76
Cumulative effect of change in accounting principles .....	(97)	(361)
Per common share – Primary .....	(0.64)	(2.73)
Net income (loss) – common stockholders .....	58	(187)
Per common share – Primary .....	0.36	(1.46)
Cash dividends .....	110	114
Per common share .....	0.75	0.875 <sup>a</sup>
Special distribution of Praxair common stock per common share .....	-	15.875
Capital expenditures .....	395	359
<b>At Year-End</b>		
Total assets .....	\$ 4,689	\$ 4,941
Total debt .....	966	1,471
UCC stockholders' equity .....	1,428	1,238
Per common share .....	9.49	9.32
Common shares outstanding (thousands) .....	150,548	132,865
Common stockholders of record .....	58,795	60,320
Employees .....	13,051	15,075

a) Includes \$0.125 per share allocated to shares of Praxair, Inc. prior to its spin-off on June 30, 1992.

## After Solid Gains in 1993, Carbide Looks for Growth

**D**espite difficult conditions for some of our businesses, Union Carbide and its stockholders had a good year in 1993. Net income available to common stockholders from continuing operations rose nearly 45 percent over 1992 to \$155 million. Per share income rose 32 percent to \$1.00. And Union Carbide shares appreciated nearly 35 percent during the year to close at \$22.38, the fifth-best performance in 1993 among the companies on the Dow Jones list of 30 industrials.

Moreover, we achieved the gains in income with no help at all from the commodity chemicals markets. Overcapacity in the worldwide industry drove margins for ethylene glycol and commodity polyethylene, our two largest-volume products, to some of the lowest levels ever seen.

Although several smaller businesses did well in 1993, as did our UCAR International joint venture and UOP partnership, our strong performance in the face of hard times is traceable mainly to the high priority placed on increasing the value of your company. In a year of depressed prices and margins, that meant redoubled efforts to drive down costs.

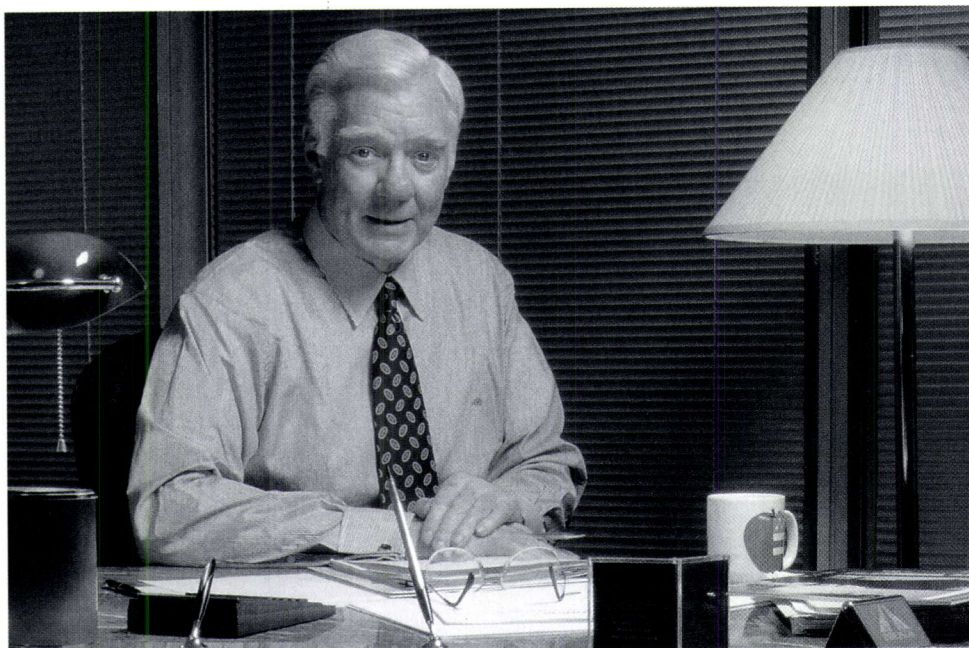
We untangled bureaucratic procedures, streamlined major work processes, shut down some high-cost operations, restructured and consolidated line and staff operations, and found new ways to do more with less.

By late 1992 it was clear that we would reach our end-of-1994 \$400 million cost-reduction target a year ahead of schedule. With many of our reengineering projects still in progress, we felt confident in raising the bar to \$575 million by the end of 1994. And our people did all this while improving safety and

environmental performance and doing more for our customers.

Yet the pride in their accomplishment is tinged with sadness. The reorganization and work simplification made necessary by the urgent need to improve productivity by cutting costs also resulted in job reductions across the Carbide system.

Reductions occurred at all levels. Total employment at the end of the year was down more than 13 percent from the year before, to 13,051.



*Robert D. Kennedy  
Chairman and Chief Executive Officer*

Employment in the highest salaried groups went from 242 in December 1990 to 146 at the end of last year.

The reductions were painful, not only for the people whose jobs were eliminated, but also for their associates who remain and, I can assure you, for management.

Even though the downturn we're in is still at the bottom and shows no sign that it's ready to give up, it will not last forever. We are convinced that substantial growth opportunities exist for strong companies with low-cost chemical process technologies, and we embarked on the growth phase of our strategy in 1993.

The 650 million-pound-capacity UNIPOL Process polyethylene facility we are building at Taft, La., for start-up in 1995 is a good example. Using new technology, the facility will produce a new kind of linear low-density polyethylene resin that will open profitable plastic product markets we've not been able to serve before.

In a project with Asian partners, we're building a glycol unit in Prentiss, Alberta, Canada, also based on new technology, with the added advantage of access to low-cost Canadian raw materials.

In May we announced plans to build a 300 million-pounds-per-year oxo alcohol facility at Taft for the production of butanol. The new facility will incorporate the next generation of process technology, improving the product mix while reducing investment and operating costs. Butanol is a key ingredient in chemical intermediates used in paints and coatings.

And in June we announced negotiations for a joint venture with Petrochemical Industries Company of Kuwait to build a world-scale petrochemical complex in that country with a triple-threat competitive advantage — Kuwait's low-cost feedstock and Union Carbide's low-cost technology and worldwide marketing capability. Planned to start up in 1997, the complex is expected to be the world's lowest-cost supplier of polyethylene and ethylene glycol, with an advantaged position in Asian-Pacific and European markets.

We are also moving toward commercial production of ethylene/propylene rubber, using a process based on our UNIPOL Process technology that will give us a significant cost advantage over other producers. We'll target the roofing, tubing and gasketing markets for openers, but also have our sights on the huge tire market for these high-strength, rubberlike compounds.

The objective of our growth strategy is not simply to get bigger, but to boost productivity, spread technology costs over a larger sales base and add value by increasing our stake in profitable markets. And we'll explore other growth opportunities during 1994, chiefly joint ventures in which our superior technology would represent a large share of our equity contribution.

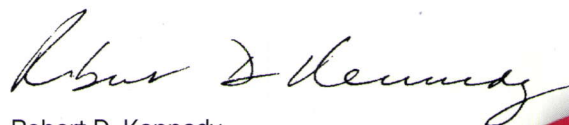
The year just ended also saw Carbide grow stronger financially. We reduced debt to under \$1 billion from nearly \$1.5 billion at the end of 1992. We also reduced interest charges by more than one half, from \$146 million to \$70 million through a combination of debt reduction and refinancing. And we delivered on our promise to reduce Carbide's debt-to-capitalization ratio to about 40 percent, a more-than-comfortable range.

With our "downsizing" virtually completed, we are working hard to institutionalize the efficiencies of our new work processes. Our mantra across the company is "continuous improvement." Carbiders know from the experience of the past several years that it's possible to improve even those things we think we are doing well.

It's a sign that, along with most other things at Carbide, our corporate culture is changing fast. By minimizing the bureaucracy and turf protection that slows up most large organizations, we are freeing employees at every level to act like owners, take charge of their own performance and find new ways to add value.

The past few years have not been easy for Carbiders, but they've come through, as we knew they would. They are an increasingly diversified group whose competence, enthusiasm for our future and desire to do well makes us confident that Carbide will continue to prosper.

On a personal note, we'd like stockholders to know that Union Carbide President Bill Joyce was named by President Clinton to receive the National Medal of Technology for his leading role in developing our UNIPOL Process, which revolutionized the plastics industry when it appeared in the 1970s. Dr. Joyce received the medal from the President at a Rose Garden ceremony in September. We are all quite proud.



Robert D. Kennedy  
Jan. 26, 1994

## Businesses Cut Costs, Gain Strength

**C**arbide performed well in 1993 despite the oversupply problems in many of our major markets. And we drew measurably closer to our strategic goal of becoming the low-cost and preferred supplier among our chemical industry competitors.

We further streamlined operations and reduced costs, introduced new products and technologies to meet customer needs, prepared to enter ventures that will enhance our position in world markets, and made money despite worsening market conditions for key products.

One security analyst described our earnings performance in light of depressed market conditions as "defying gravity." But there was no magic, simply a sustained effort to reduce costs and eliminate any work that did not add value.

Cost-saving projects came in all sizes and in every business and function. Our huge facility at Taft, La., for example, perfected a highly efficient maintenance program. When adopted by all of our plants in 1994, we can target a 20 percent reduction of Carbide's \$300 million-a-year maintenance bill.

On a smaller scale, our plant at Texas City, Tex., found a way to save \$200,000 a year by reconditioning mechanical seals at the plant instead of returning them to the manufacturer. It's an approach that will benefit other plants as well.

Tighter control of planning and design of capital projects is also paying off. For example, a 1993 expansion of acrolein production at our Taft plant to meet increased demand for biocides and animal nutrients came in at 25 percent below budget, saving \$6 million.

Our target for the reorganization of our engineering group now under way, and the streamlining of engineering work processes, is an average 25 percent reduction in total costs of future capital projects.

Staff departments have also done their part to reduce costs. The restructuring in 1993 of Carbide's accounting, credit and treasury functions has already achieved more than half of their combined year-end 1994 cost reduction target of \$45 million. The savings

target for our restructured information technology operations is another \$30 million a year.

After adjusting for the sale of our OrganoSilicon business (OSi), fixed costs (manufacturing, R&D and selling and administration expenses) were reduced another \$25 million in 1993 compared to the prior year. Gains in productivity and efficiency at our plants, fixed cost reductions in joint venture operations and lower interest charges stemming from reduced inventory accounted for a further \$50 million of savings during the year. These savings more than offset inflation in our fixed costs. Inflation for companies like ours — including employee health care costs, insurance and local property taxes — runs about 5 percent per year.

By year-end we had reduced costs for the full year by more than \$400 million compared to 1990 levels, and appeared well on our way to our end-of-1994 savings-rate target of \$575 million.

Competitive pressures are forcing us to pass along much of these cost reductions to customers. We estimate that under current market conditions we're keeping only a third of the savings achieved to date. But even if we keep no more than a quarter of our targeted \$575 million annual savings, Carbide can reasonably expect an average return on capital (ROC) over a full industry cycle of about 15 percent, almost double our historical average. Equally noteworthy, our current ROC at the bottom of the cycle is about equal to what it averaged over the 1980s, the last full cycle.

All of our businesses gave cost reduction top priority in 1993. And whether they struggled with tough market conditions, as did several of our high-volume businesses, or had a banner year, as did some of our smaller, specialty businesses, all took important steps to enhance their competitive standing in world markets.

Industry overcapacity seriously affected our **ethylene oxide/glycol** business, which was unprofitable in 1993, despite a 5 percent increase in sales volumes. But positive earnings in ethylene oxide derivatives significantly offset earnings losses in ethylene glycol.

Yet the ethylene oxide/glycol business took important steps in 1993 to strengthen its competitive standing in world markets and to make the most of the market upturn when it comes. Demand for ethylene glycol continued to grow — especially in Asia — but prices and margins remained depressed as the output of new capacity reached the marketplace. We continued to enhance the cost advantage of our technology and to implement other cost-saving measures that will improve profitability. In 1993, however, operating problems at one of our Taft units caused interruptions that significantly reduced earnings. These problems were corrected and the unit came back on stream by year-end.



*William H. Joyce*  
*President and Chief Operating Officer*

Work progressed on a long-planned, 660 million-pounds-per-year ethylene glycol unit in Alberta, Canada, that will have the dual advantage of Carbide's state-of-the-art process technology and low-cost Canadian raw materials. A long-term contract for ethylene supply has been in place since 1989. The unit, scheduled to start up in late 1994, will serve fast-growing Far Eastern polyester fiber markets. Carbide is a 50 percent owner, with two Asian partners sharing the other half.

Technology improvements and the resulting capacity increase in our larger units allowed us to shut

down a smaller, noncompetitive oxide/glycol facility in Montreal during the year, with projected savings of \$13 million annually.

Our ethylene oxide derivatives business posted a 5 percent increase in volumes for the year and went after new business with product upgrades and aggressive marketing.

To keep up with worldwide demand growth of 3-to-4 percent a year for ethyleneamines — chemicals used in the manufacture of motor and lube oil additives, corrosion inhibitors and many other industrial products — Carbide added 50 million pounds of capacity to the ethyleneamines unit at its Taft, La., plant.

The increase, achieved mainly by means of technology improvements with negligible capital expense, brings capacity to 230 million pounds per year. This makes the Taft unit the world's largest.

A new product added to the ethyleneamines line in 1993 targets new applications in fast-growing markets for pharmaceutical products.

Oxide derivatives' surfactants business recorded continued growth in 1993, including a 14 percent increase in commodity products. We began production of some TRITON surfactants — a business we acquired in 1990 from Rohm & Haas — at our Institute, W.Va.,

plant during the year. A new South Charleston, W.Va., 50 million-pound-per-year surfactants plant scheduled for start-up in April of 1994 will produce the rest. Full integration of this business into our operations will enable us to further improve customer service.

Work began on a 25 percent capacity expansion of our alkyl alkanolamines unit at South Charleston to meet growing demand in gas treating and other industrial processes. We successfully commercialized UCON refrigeration lubricants for use with new, environmentally friendly fluorocarbons in automotive air-conditioning. We obtained a factory approval rating and long-term supply agreement with General Motors.

The derivatives business introduced a high-performance aircraft anti-icing fluid based on new technology. Laboratory tests indicate it can prevent ice accumulation on aircraft surfaces substantially longer than competing products. Commercialization is scheduled for the winter of 1994-95.

### Depressed Prices

Our \$1.5 billion **polyolefins** business also felt the impact of depressed prices in 1993, sustaining earnings losses for the year in its UNIPOL Polymers commodity resin line of business. More than offsetting the losses were strong performances by UNIPOL Process licensing and by our Wire and Cable Materials business, the world's leading supplier of polyolefin insulating and jacketing materials to the power and telecommunications industries.

Wire and Cable posted record sales in 1993, reflecting a rapidly growing export market fueled by investment in telecommunications and power distribution infrastructures in developing countries. The business also made inroads in European markets, where we expect to seek a larger presence for Wire and Cable in 1994.

Carbide's FLEXOMER brand of strong, flexible olefin-based copolymer resins made good gains in 1993, as sales rose 30 percent compared to 1992. These ultra-high-strength materials serve growing markets for stretch wrap, trash bags, packaging film and bags for ice and frozen foods. FLEXOMER products saw wider use in 1993 as geomembranes, which serve environmental needs in the form of liners for ponds, canals and landfills and in mining applications.

UNIPOL Process licensing in 1993 added three new licensees to its long list, in Indonesia, China and a yet-to-be-announced Asian location. Two licensees, in Malaysia and Saudi Arabia, started up new plants during the year.

And UNIPOL Process technology performed well for all of our licensees around the world, producing high-quality materials, saving energy and capital costs, and vastly reducing environmental impact compared to conventional processes. Reliability and operating efficiency are hallmarks of the process, illustrated

again in 1993 as UNIPOL Process licensees posted an average operating rate of 110 percent of nameplate plant capacity.

Early in the year Carbide announced an important new development in UNIPOL Process technology that, among other marketplace advantages, allows us to take direct aim at sold-out segments of the polyethylene market whose extruding equipment up to now could process only conventional low-density materials.

Our new polymers, now as easy to extrude on existing equipment as conventional resins, will enable fabricators of industrial liners, trash bags and construction and agricultural plastic films to make the same products at lower cost or stronger products for the same cost.

We are building a 650 million-pounds-per-year production facility employing the new technology at our Star plant in Taft, La. When completed in 1995, the new facility will boost the plant's total polyethylene capacity to nearly 1.7 billion pounds, and Carbide's total to over 3.2 billion pounds annually.

In 1993 we announced that negotiations were under way for a petrochemical joint venture with Petrochemical Industries Company of Kuwait. The petrochemical complex should secure a major strategic advantage for Union Carbide and its partner — the combination of access to low-cost raw materials, access to major markets and Carbide's state-of-the-art process technologies.

Planned to begin operations in 1997, the plant, which will serve Asian-Pacific and European markets, is expected to be the lowest-cost supplier of polyethylene and ethylene oxide/glycol in the world. The venture could be earning attractive returns even at today's severely depressed prices.

### Gain in Volumes

The recession in Japan and Western Europe hurt sales of our **solvents and intermediates** in those markets. A strong recovery in the U.S. industrial coatings market helped to offset the effects of the recession overseas, resulting in a 3 percent gain in sales volumes for the year.

To keep up with market demand, we began construction of a 300 million-pound-per-year oxo alcohol unit at our Taft plant. The unit will feature the next generation of technology, which includes a rhodium-based catalyst system that improves the product mix while reducing investment and operating costs. The unit supplements production at our Texas City, Tex., plant and will increase Carbide's total capacity to 1.3 billion pounds.

UCAR Emulsion Systems (UES) brought on stream two new latex plants, in Dubai and in China, for a total of 16 worldwide. The new plants serve fast growing Mid-East and Asian markets. UES also introduced new coatings modifiers and emulsions in 1993 that address environmental concerns faced by the paint and coatings industry. The new products are making good inroads with manufacturers of coatings for paper and building materials.

Also on the environmental front, our UNICARB System for spray coatings received a 1993 Stratospheric Protection Award from the U.S. Environmental Protection Agency. The system reduces emissions of volatile organic compounds from spray coatings by up to 80 percent. The award cites UNICARB System's contribution to reducing emissions in the application of nonstick coatings to bakeware.

### Record Profits

Although the recession in Europe and reduced demand for oil field chemicals kept 1993 sales flat for our continuing **specialty polymers and products** businesses, productivity gains and cost reduction led this group of businesses to its most profitable year.

We completed an expansion of our acrolein facility at Taft to support the growth of our glutaraldehyde biocides business. Biocides are chemicals that inhibit the growth of mold and bacteria. We are expanding several units — polyvinyl acetate, hydroxyethyl cellulose and POLYOX water-soluble resins — to meet strong demand for these products, which, among other uses, are found, respectively, in chewing gum, paint thickeners and pharmaceutical applications. We are also renovating the specialty ketones

complex at our South Charleston plant to support sales for these chemical intermediates.

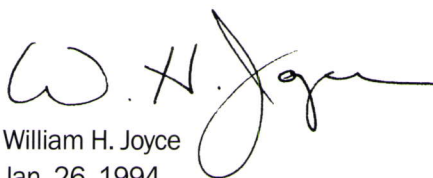
Record earnings in 1993 for Carbide's UOP partnership with AlliedSignal Inc. made a strong contribution to corporate earnings. UOP achieved the record in the face of continuing weakness in the refining and petrochemical industries, the chief customers for UOP technologies, catalysts and adsorbents.

UCAR International, our carbon products joint venture with Mitsubishi Corporation, contributed to our 1993 results as well. UCAR's reengineering measures, productivity improvements and market expansions should result in further improvement in 1994.

Union Carbide is a powerful competitor in each of the businesses named in this report. We think it's clear that our mission — to increase the value of the company by building on our technological and other strengths in chemicals and polymers — guided all we did in 1993.

Our chemicals and plastics businesses are our future. Through aggressive marketing and product development — and cost reductions that should achieve our \$575 million cost-reduction target on schedule — we'll continue to strengthen them in 1994.

The considerable achievements of Carbide people, in a year when major chemical markets were at a low point, bode well for us in 1994 and beyond.



William H. Joyce  
Jan. 26, 1994

## At a Glance

**U**nion Carbide is a basic chemicals company with many of the industry's most advanced process technologies and some of the most efficient large-scale chemical production facilities found anywhere in the world.

Union Carbide buys liquefied petroleum gas and naphtha to make ethylene and propylene. The company then uses state-of-the-art process technologies to convert manufactured and purchased ethylene and propylene into products that include polyethylene (the world's most widely used plastic); ethylene oxide/glycol and derivatives, and alcohols. In addition, the corporation makes and buys other materials to produce acrylates, acetic esters, latexes, ketones and alcohols. Carbide also licenses certain of its key olefins-based technologies to others.

From manufactured or purchased chemicals, Union Carbide produces the following specialty chemicals: specialty glycol ethers, polyethylene oxide polymers, polyalkylene glycols, hydroxyethyl cellulose, glucose and lanolin derivatives, alkyl alkanolamines, specialty ketones, acrolein and acrolein derivatives, ethylidene norbornene, polyvinyl acetate, vinyl chloride-vinyl acetate copolymers, caprolactone derivatives and several epoxide intermediates.

Union Carbide's products are sold directly by its own sales force and through distributors worldwide, and are shipped by rail, barge, ship, pipeline and truck.

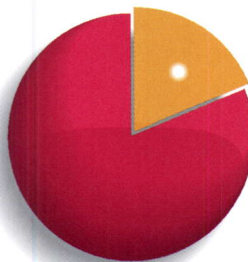
The corporation has technology licensing and services businesses in addition to its olefins-chain and specialty chemicals and polymers operations.

The leading Union Carbide end markets as a percentage of sales are:

➤ Paints, coatings and adhesives	25%
➤ Packaging and consumer plastic products	16%
➤ Wire and cable	11%
➤ Household and personal care	7%
➤ Automotive, including antifreeze	5%
➤ Textiles	5%
➤ Agricultural and food products	4%
➤ Oil and gas	4%

## Businesses/Net Sales

### Olefins/Ethylene Oxide/Glycol/Derivatives

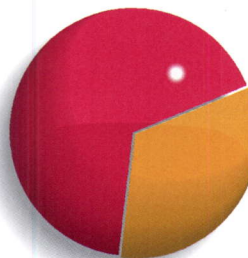


**L.P. McMaster** — Corporate VP and General Mgr., Ethylene Oxide/Glycol  
**G.D. Mounts** — VP, General Mgr., Ethylene Oxide Derivatives  
**V.F. Villani** — VP, General Mgr., Hydrocarbons

#### Sales (in millions)

	1993	1992	1991
(\$)	906	922	1,094
(%)	19	19	22

### Polyolefins

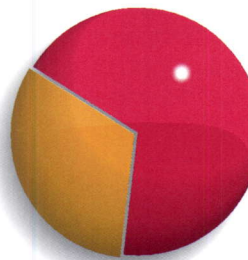


**F.D. Ryan** — VP, General Mgr., UNIPOL Polymers  
**D.C. Scheid** — VP, General Mgr., Specialty Polyolefins  
**R.B. Staub** — Corporate VP and General Mgr., UNIPOL Systems

#### Sales (in millions)

	1993	1992	1991
(\$)	1,525	1,518	1,455
(%)	33	31	30

### Solvents, Intermediates and Emulsion Systems

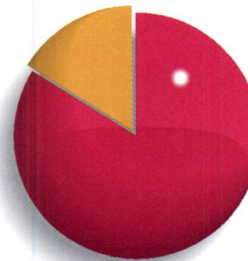


**J.F. Flynn** — Corporate VP and General Mgr., Solvents and Intermediates  
**G.E. Playford** — Corporate VP and General Mgr., UCAR Emulsion Systems

#### Sales (in millions)

	1993	1992	1991
(\$)	1,474	1,545	1,500
(%)	32	32	31

### Specialty Polymers and Products



**E.J. Boros** — VP, General Mgr., Specialty Polymers and Products

#### Sales (in millions)<sup>a</sup>

	1993	1992	1991
(\$)	735	887	828
(%)	16	18	17

a) The OrganoSilicon business was included in results for the full year 1992 and 1991, and in 1993 until its sale in July.

## Principal Products and Services/Major End-Use Applications

➤ Union Carbide manufactures about three-quarters of its ethylene requirements and more than one-half of its propylene requirements. Ethylene and propylene are the key raw materials for Union Carbide's olefins-chain businesses.

➤ Union Carbide is the world's leading producer of ethylene oxide/glycol and manufactures a broad range of derivatives. **Ethylene oxide** is primarily a chemical intermediate used in the manufacture of ethylene glycol, polyethylene glycol, glycol ethers, ethanolamines, surfactants, antimicrobials and cold-sterilants. **Ethylene glycol** is used extensively in the production of automotive antifreeze and engine

coolants; polyester fiber, resin and film, and a variety of freeze/thaw stabilizers, including UCAR aircraft and runway deicing fluids and NORKOOL and UCARTHERM heat-transfer fluids. **Ethylene oxide derivative** products include di-, tri- and tetraethylene glycols; CARBOWAX polyethylene glycols, with hundreds of uses as a processing aid in nearly all industries; ethanolamines for detergents and in natural gas conditioning and refining; ethyleneamines for many industrial uses; TERGITOL and TRITON specialty surfactants for detergents and many cleaning products; UCAR cement grinding aids; UCON fluids and lubricants; alkyl alkanolamines, and gas-treating products, including UCARSOL and SELEXOL solvents.

➤ Union Carbide is a leading manufacturer of polyethylene, the world's most widely used plastic. The company also licenses its UNIPOL Process technology, the most cost-efficient and versatile method of manufacturing polyethylene and polypropylene.

➤ **UNIPOL Polymers** produces and markets linear low-density (LLDPE) and high-density polyethylenes (HDPE), used in high-volume applications such as lids, grocery sacks, trash bags, packaging and industrial liners, and FLEXOMER very low-density resins, used to produce hose and tubing, pond and canal liners, landfill caps, ice and frozen-food bags, and stretch wrap. UNIPOL Polymers also processes

and markets post-consumer recycled polyethylene and polyethylene terephthalate (PET) resins (under the CURBSIDE BLEND trademark), which are used to produce plastic garbage cans and for plastic cosmetic, bleach and detergent bottles. **Specialty Polyolefins** manufactures and markets worldwide polyolefin-based insulation, semiconducting and jacketing compounds for wire and cable applications. These include power distribution, telecommunications and flame-retardant power and control cables. **UNIPOL Systems** licenses UNIPOL Process technology to polyethylene and polypropylene producers worldwide, and develops new process technology for manufacture of other olefins-based polymers.

➤ Union Carbide supplies one of the industry's broadest product lines of solvents, resins, intermediates, emulsions and additives.

➤ **Solvents and Intermediates** products include acids and anhydrides; alcohols, including ANHYDROL and SYNASOL ethanol; esters; glycol ethers (CARBITOL and CELLOSOLVE solvents); ketones, and monomers. Its principal customers are the paints and coatings industries, and many of its products are also used widely in cosmetics and personal care preparations, adhesives, household and institutional

products, drugs and pharmaceuticals, fuel and lube oil additives, and agricultural products. **Emulsion Systems** products, found in exterior and interior house paints, include UCAR latex products, including acrylics; vinyl-acrylics that impart enhanced staining, weather and scrub resistance to paints; vinyl acetate and acrylics for waterborne coatings, and POLYPHOBE thickeners. The company's UNICARB System is a pollution-reducing, supercritical fluid technology that can reduce volatile organic compounds in spray-applied coatings by up to 80 percent.

➤ Union Carbide manufactures and markets numerous specialty products and targets sharply defined market segments for many of its technologies.

➤ **Specification Chemicals** includes acrolein derivatives, ethylidene norbornene (ENB), specialty ketones, and glutaraldehyde. **Performance Products** includes POLYOX water-soluble resins and biocides used to control microorganisms, in uses such as sterilants and preservatives. **Functional Polymers** includes CELLOSIZE hydroxyethyl cellulose (HEC), polyvinyl acetate resins, low-profile additives and NEULON polyester modifiers. Both POLYOX water-soluble resins and CELLOSIZE HEC are used widely in personal care products, pharma-

ceuticals and coatings. **Coatings Resins** products include UCAR solution vinyl resins; TONE caprolactone-based materials; cycloaliphatic epoxides, including CYRACURE UV-curing products, and FLEXOL plasticizers used in magnetic tape, food and beverage packaging, plastic substrates and orthopedic materials. The **Organic Coating Systems Group** provides materials and systems for printed wiring and circuit boards. **Amerchol Corporation**, a Union Carbide subsidiary, manufactures and sells a wide variety of lanolin, glucose and cellulose-based materials for the worldwide personal care industry. **UOP**, a joint venture with AlliedSignal Inc., is a leading international supplier of process technology, catalysts and molecular sieves to the refining, petrochemical and process industries.

## Manufacturing Sites

## Major Competitors

### Olefins/Ethylene Oxide/Glycol/Derivatives

Institute, W.Va.  
Prentiss, Alberta, Canada  
Seadrift, Tex.  
South Charleston, W.Va.

Taft, La.  
Texas City, Tex.  
Washougal, Wash.

Saudi Basic Industries Corporation  
(SABIC)  
Shell Chemical  
Occidental Chemical

Texaco Chemical  
BASF Aktiengesellschaft

### Polyolefins

Bound Brook, N.J.  
Boucherville, Quebec,  
Canada  
Cowansville, Quebec,  
Canada  
Cubatao, Brazil

Orangeville, Ontario, Canada  
Orillia, Ontario, Canada  
Taft (Star Plant), La.  
Seadrift, Tex.

Quantum Chemicals  
Dow Chemical  
Exxon Chemical

Mobil Chemical  
Novacor Chemical

### Solvents, Intermediates and Emulsion Systems

Alsip, Ill.  
Batangas, Philippines  
Bayamon, P.R.  
Ekala, Sri Lanka  
Garland, Tex.  
Guangdong Province,  
People's Republic of China  
Guayaquil, Ecuador  
Institute, W.Va.  
Jakarta, Indonesia  
Jebel Ali Free Trade Zone,  
Dubai, United Arab Emirates

Jurong, Singapore  
Kowloon, Hong Kong  
Nonthaburi, Thailand  
Seadrift, Tex.  
Seremban, Malaysia  
Somerset, N.J.  
Texas City, Tex.  
Torrance, Calif.  
Tucker, Ga.

Eastman Chemical  
Hoechst Celanese  
BASF Aktiengesellschaft

Shell Chemical  
Rohm & Haas

### Specialty Polymers and Products

Amherst, N.H.  
Antwerp, Belgium  
Aratu, Brazil  
Bensenville, Ill.  
Castleton, Ind.  
Chattanooga, Tenn.  
Clear Lake, Wis.  
Edison, N.J.  
Greensburg, La.  
Henderson, Ky.  
Indianapolis, Ind.

Institute, W.Va.  
Mamaroneck, N.Y.  
Northampton,  
United Kingdom  
Ontario, Calif.  
South Charleston, W.Va.  
Taft, La.  
Texas City, Tex.  
Torrance, Calif.  
Vilvoorde, Belgium

Union Carbide's competitive position varies widely from one product/market segment to another. Competitors include a number of domestic and foreign companies, both diversified and specialized.

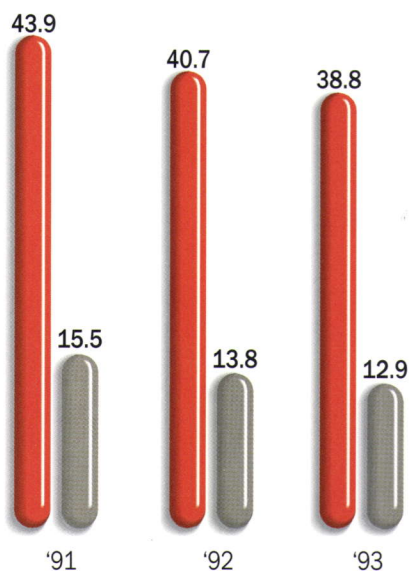
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# Management's Discussion and Analysis

## Selling Price vs. Fixed Cost

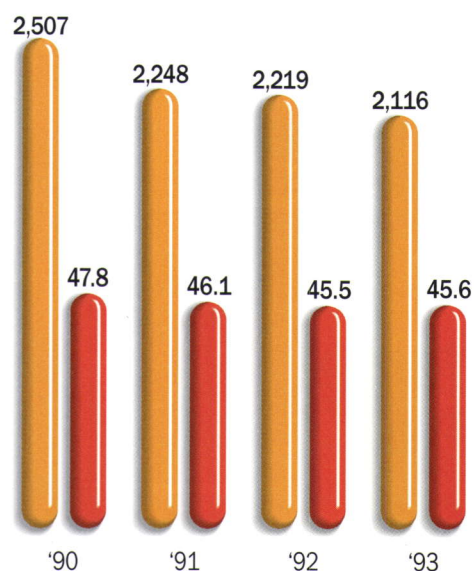
(Cents/Pound)



● Selling Price

● Fixed Cost

## Variable Margin

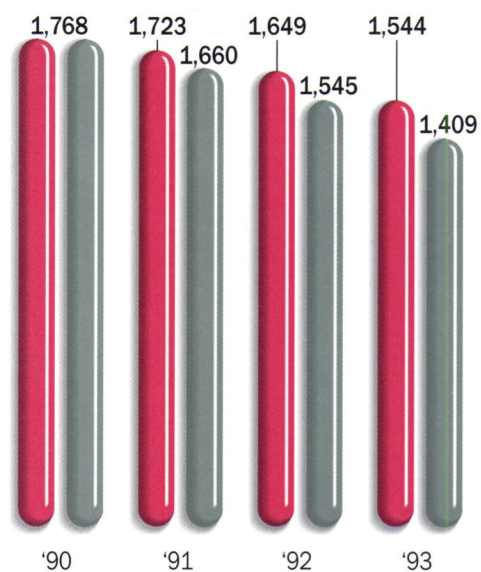


● Millions of Dollars

● Percent of Sales

## Fixed Costs

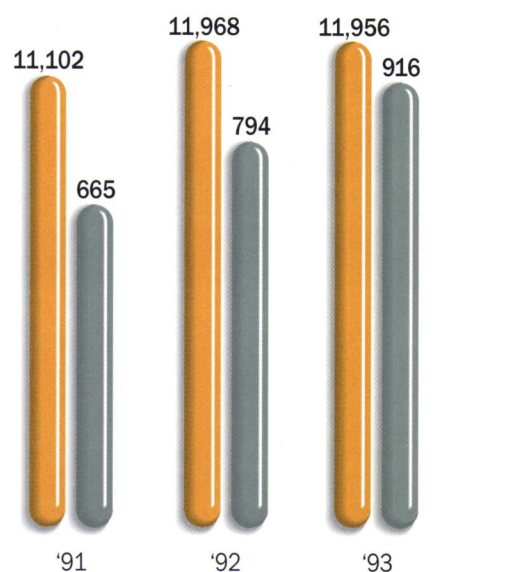
(Millions of Dollars)



● As Reported

● Constant 1990 \$

## Total Volume and Employee Productivity



● Volume  
(Millions of Pounds)

● Thousands of Pounds  
per Employee

## RESULTS OF OPERATIONS

Dollar amounts in millions (except per share figures)	1993 <sup>a</sup>	1992 <sup>b</sup>	1991 <sup>c</sup>
Net sales .....	<b>\$4,640</b>	\$4,872	\$4,877
Operating profit.....	<b>354</b>	316	122
General expenses (income) – net .....	<b>57</b>	(8)	41
Interest expense .....	<b>70</b>	146	228
Pre-tax income (loss) from continuing operations .....	<b>227</b>	178	(147)
Income (loss) from continuing operations .....	<b>165</b>	119	(116)
Income from discontinued operations .....	–	67	107
Cumulative effect of change in accounting principles .....	<b>(97)</b>	(361)	–
Net income (loss) – common stockholders .....	<b>58</b>	(187)	(28)
Per share, primary:			
Continuing operations .....	<b>1.00</b>	0.76	(1.06)
Discontinued operations .....	–	0.51	0.84
Cumulative effect of change in accounting principles .....	<b>(0.64)</b>	(2.73)	–
<b>Net income (loss) .....</b>	<b>0.36</b>	<b>(1.46)</b>	<b>(0.22)</b>

a) Effective Jan. 1, 1993, the corporation adopted Financial Accounting Standard (FAS) 112, "Employers' Accounting for Postemployment Benefits."

b) Effective Jan. 1, 1992, the corporation adopted FAS 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions," and FAS 109, "Accounting for Income Taxes."

c) Includes charges of \$209 million, with \$130 million related to operating profit and \$79 million related to general expenses – net associated with the corporation's profit improvement program. The total after-tax effect was \$160 million.

## Summary and Outlook

In 1993, as in the two prior years, slow market growth and industry overcapacity depressed prices for ethylene oxide/glycol and polyethylene, our two largest-volume products. Weak market conditions were mitigated somewhat by increased licensing income and increased demand for certain chemicals and polymers, most notably wire and cable insulation and ethylene oxide derivatives. But reductions of fixed cost and interest expense once again made the largest contributions to improvement of income from continuing operations, as they have since 1991. Earnings from partnerships and corporate joint ventures also increased and were significant in 1993, reflecting the combined effect of cost reductions and improved market conditions for certain of those businesses.

Highlights of 1993 performance included:

- Attainment of the corporation's \$400 million cost-reduction goal a year ahead of schedule and raising the cost-reduction target to \$575 million.
- Sale of the OrganoSilicon business (OSi), which concluded the corporation's previously announced \$500 million divestiture program.
- Completion of expanded ethyleneamines and acrolein facilities in the U.S., new latex plants in Dubai and China and the shut-down of a noncompetitive ethylene oxide/glycol unit in Montreal East, Canada.
- Commencement of negotiations, which are ongoing, to form a world-scale petrochemical joint venture in Kuwait.
- Commencement of construction of a major new 650 million-pound-per-year polyethylene facility at the Star plant that will use the next generation UNIPOL Process technology, and of a new 300 million-pound-per-year oxo alcohol facility at Taft, La.
- Reduction of debt levels from \$1.471 billion in 1992 to \$966 million, and reduction of interest expense by \$76 million to \$70 million.

The corporation does not expect significant improvement in market conditions in 1994 for its major products and continues to concentrate on cost reduction and productivity improvement programs. Partnership and joint venture earnings are expected to show increases in 1994.

Dollar amounts in millions	1993	1992	1991
Employees (year-end) .....	<b>13,051</b>	15,075	16,705
Employment costs (wages, benefits, payroll taxes) .....	<b>\$886</b>	\$983	\$990

## 1993 Compared with 1992

Sales revenues fell 5 percent from 1992 levels to \$4.640 billion, largely a result of the sale of OSi in midyear 1993. The impact of a slight improvement in overall volume, excluding the OSi business, was offset by weak pricing, particularly in ethylene glycol and polyethylene. Export revenues from domestic operations rose 8 percent over the prior year to \$604 million, with both commodity and noncommodity products showing improvement.

Operating profit rose 12 percent in 1993 to \$354 million. This included a before-tax gain of \$54 million from the sale of OSi, offset by a before-tax restructuring charge of \$46 million from the shutdown of an ethylene oxide/glycol manufacturing facility at Montreal East, Canada, a before-tax loss of \$9 million on the sale of Vitaphore Corporation, a medical device company, and a before-tax loss of \$9 million on the write-down of a Canadian business.

The corporation's variable margin (sales revenues less variable manufacturing costs) as a percentage of sales rose slightly to 45.6 percent, from 45.5 percent in 1992. Weak pricing in commodity product lines and the absence of margins from the OSi business in the second half of 1993 were offset by strong licensing results as well as reduced feedstock costs. The corporation's current year gross margin (variable margin less fixed manufacturing costs) as a percentage of sales was 22.7 percent, the same as in 1992. After excluding the effect of the OSi sale, fixed manufacturing costs decreased 1 percent versus the prior year, more than offsetting inflation.

Selling, administration and other expenses continued to decline as a result of ongoing cost reduction/work process change programs. In 1993 selling, administration and other expenses totaled \$340 million, down 11 percent compared to 1992 (a 5 percent decline excluding the OSi sale). Adjusted for major divestitures, these overhead costs have decreased \$95 million or 23 percent since 1990. Excluding OSi, research and development expenses have declined modestly compared to 1992. In general, the corporation has sought to use work process initiatives to improve research and development productivity rather than increasing expenditures.

Income from partnerships rose 12 percent to \$67 million, primarily due to strong results from UOP and reduced losses from Petromont and Company Limited Partnership (Petromont), our Canadian petrochemical limited partnership. UCAR International Inc. (UCAR) reported a strong turnaround in 1993, contributing to income from corporate investments carried at equity of \$16 million, compared to losses in 1992 of \$14 million.

### 1992 Compared with 1991

Sales of \$4.872 billion were essentially flat compared to prior year sales of \$4.877 billion. The impact of increasing volumes in most product lines, including ethylene glycol and polyethylene, was more than offset by declining prices. Export sales from domestic operations of \$560 million were also essentially flat compared to the prior year.

Operating profit for 1992 was \$316 million. This included a charge of \$35 million for additional severance expense associated with the corporation's profit improvement program, and income of \$25 million from the settlement of a patent infringement case. Operating profit for 1991 totaled \$122 million, including charges of \$165 million for severance and relocation costs, joint venture charges, legal costs and the sale and wind-down of the trans-

former retrofill service business of the Unison Transformer Services subsidiary.

The corporation's variable margin decreased from 46.1 percent in 1991 to 45.5 percent in 1992 due to higher feedstock costs. Gross margin as a percentage of sales increased from 22.3 percent in 1991 to 22.7 percent in 1992, due to lower fixed manufacturing costs. In addition, the corporation continued to realize overhead cost savings through tight cost controls and work process changes in concert with the profit improvement program.

Income from partnerships was \$60 million in 1992, primarily as a result of UOP's favorable results. UOP's strong performance offset losses from Petromont. Results from partnerships in 1991 showed a loss of \$22 million, including a \$60 million charge associated with the corporation's share of the write-down to net realizable value of certain assets applicable to UOP's fluid cracking catalyst business.

### 1991 Compared with 1990

Sales of \$4.877 billion decreased 7 percent from 1990. Overall selling prices for 1991 were lower than in the prior year. Weak pricing for polyethylene was partially offset by increased polyester glycol volumes. Export sales from domestic operations increased 3 percent to \$568 million in 1991, mainly as a result of polyester glycol demand.

Operating profit decreased 80 percent compared with 1990, to \$122 million. Severance and relocation charges, joint venture charges, the Seadrift explosion, and sale and wind-down of the Unison business reduced operating results in 1991 by a total of \$261 million. The gross margin ratio declined throughout the year, totaling 22.3 percent in 1991 as compared to 26.0 percent in 1990. Lower selling prices, increased hydrocarbons feedstock costs, and the \$96 million loss of margin due to the Seadrift explosion contributed to the decreasing gross margin in 1991. Higher-than-anticipated maintenance and turnaround costs of a Texas City, Tex., olefins unit late in 1991 also lowered the gross margin. Selling, administration and other expenses decreased by 12 percent, mainly as a result of cost reduction efforts and lower contributions to profit sharing. Operating profit was reduced by \$130 million, representing severance and relocation costs, the corporation's \$60 million share of UOP's write-down of its fluid cracking catalyst business and certain other provisions mainly associated with the corporation's profit improvement program, and by \$35 million from the sale and wind-down of the Unison business.

Income from partnerships (excluding the above UOP charge) decreased to \$38 million, from \$70 million in 1990, as a result of losses by Petromont, reflecting the recessionary economy in Canada.

### General Expenses (Income) – Net

General expenses (income) - net includes unallocated corporate staff costs, foreign currency and interest rate hedging activities, corporate legal expenses, contributions, corporate realignment and reorganization costs and certain interest income, as well as losses related to noncore businesses. The corporation's principal noncore businesses include a domestic subsidiary in the uranium and vanadium business and the mining and smelting of chrome by an unconsolidated international subsidiary. These operations have been underperforming in recent years as a result of severely depressed uranium, vanadium and chrome prices, and the high cost of environmental cleanup at uranium mining sites.

Following is an analysis of general expenses (income) - net:

	Expense (Income)		
	1993	1992	1991
Corporate staff .....	\$ 41	\$ 39	\$ 39
Noncore business .....	10	6	23
Financing income .....	(4)	(6)	(27)
Litigation .....	3	11	8
Severance and other charges .....	-	-	79
Interest income from Praxair .....	-	(31)	(90)
Gain on sale of investments .....	(2)	(34)	-
Other .....	9	7	9
	<b>\$ 57</b>	<b>\$ (8)</b>	<b>\$ 41</b>

In 1993 general expenses (income) - net includes a gain of \$8 million from the sale of a corporate aircraft. In 1992 general expenses (income) - net included \$34 million income from the sale of the corporation's investments in a casualty insurance company, \$8 million from the sale of a corporate aircraft and \$31 million in interest income earned on the approximately \$1 billion of debt due from Praxair. In 1991 general expenses (income) - net included \$79 million of charges representing staff severance, headquarters consolidation, legal and spin-off costs and \$90 million in interest income from Praxair.

### Costs Relating to Protection of the Environment

Worldwide costs relating to environmental protection continue to be significant, due primarily to increasingly stringent laws and regulations and to the corporation's commitment to industry initiatives such as RESPONSIBLE CARE, as well as to its own internal standards. In 1993 worldwide expenses of continuing operations related to environmental protection for compliance with Federal, state and local laws regulating solid and hazardous wastes and discharge of materials to air and water, as well as for waste site remedial activities, totaled \$149 million. Expenses in 1992 and 1991 were \$150 million and \$184 million, respectively. In addition, worldwide capital expenditures relating to environmental protection in 1993 totaled \$51 million, compared with \$82 million and \$65 million in 1992 and 1991, respectively.

The corporation, like other companies in the U.S., periodically receives notices from the U.S. Environmental Protection Agency and from state environmental agencies, as well as claims from other companies, alleging that the corporation is a potentially responsible party (PRP) under the Comprehensive Environmental Response, Compensation and Liability Act and equivalent state laws (hereafter referred to collectively as Superfund) for past and future cleanup costs at hazardous waste sites at which the corporation is alleged to have arranged for treatment or disposal of hazardous substances. The corporation is also undertaking environmental investigation and remediation projects at hazardous waste sites located on property currently and formerly owned by the corporation pursuant to Superfund, as well as the Resource Conservation and Recovery Act and equivalent state laws.

There are approximately 130 hazardous waste sites at which management believes it is probable or reasonably possible that the corporation will incur liability for investigation and/or remediation costs. The corporation has established accruals for those hazardous waste sites where it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. The reliability and precision of the loss estimates are affected by numerous factors, such as the stage of site evaluation, the allocation of responsibility among potentially responsible parties and the assertion of additional claims. The corporation adjusts its accruals as new remediation requirements are defined, as information becomes available permitting reasonable estimates to be made, and to reflect new and changing facts.

At Dec. 31, 1993, the corporation's accruals for environmental remediation totaled \$265 million (\$234 million in 1992). Approximately 28 percent of the accrual pertains to closure and postclosure costs for both operating and closed facilities. Additionally, environmental loss contingencies of \$115 million in excess of amounts accrued existed at Dec. 31, 1993 (\$90 million in 1992).

Estimates of future costs of environmental protection are necessarily imprecise, due to numerous uncertainties. These include the impact of new laws and regulations, the availability and application of new and diverse technologies, the identification of new hazardous waste sites at which the corporation may be a PRP and, in the case of Superfund sites, the ultimate allocation of costs among PRP's and the final determination of the remedial requirements. Due to the inherent imprecision in estimating such future costs, but taking into consideration the corporation's experience to date regarding environmental matters of a similar nature and facts currently known, the corporation estimates that worldwide expenses related to environmental protection, expressed in 1993 dollars, should average about \$150 million annually over the next five years. Worldwide capital expenditures for environmental protection, also expressed in 1993 dollars, are expected to average about \$65 million annually over the same period. Management anticipates that future annual costs for environmental protection after 1998 will continue at levels comparable to the five-year average estimates.

Subject to the inherent imprecision and uncertainties in estimating and predicting future costs of environmental protection, it is management's opinion that any future annual costs for environmental protection in excess of the five-year average estimates stated here, plus those costs anticipated to continue thereafter, would not have a material adverse effect on the corporation's consolidated financial position. However, such excess costs, if any, could have a material adverse effect on consolidated results of operations in a given quarter or year.

## Litigation

The corporation and its consolidated subsidiaries are involved in a number of legal proceedings and claims with both private and governmental parties. These cover a wide range of matters including, but not limited to: product liability; governmental regulatory proceedings; health, safety and environmental matters; employment; patents; contracts and taxes. In addition, the corporation is one of a number of defendants named in an increasing number of lawsuits, some of which have more than one plaintiff, involving silicone gel breast implants. The corporation supplied bulk silicone materials to certain companies which at various times were involved in the manufacture of breast implants. These cases are discussed in more detail in the "*Commitments and Contingencies*" footnote to the financial statements. In some of these legal proceedings and claims, the remedies that may be sought or damages claimed are substantial. While it is impossible at this time to determine with certainty the ultimate outcome of any such legal proceedings and claims, management believes that adequate provisions have been made for probable losses with respect thereto and that such ultimate outcome, after provisions therefor, will not have a material adverse effect on the consolidated financial position of the corporation but could have a material effect on consolidated results of operations in a given quarter or year. Should any losses be sustained in connection with any of such legal proceedings and claims, in excess of provisions therefor, they will be charged to income in the future.

## Interest Expense

Interest expense totaled \$70 million in 1993, a decrease of \$76 million from the prior year. The decrease was primarily a result of the corporation's reductions and refinancing of debt (\$58 million) and benefits of lower rates from interest rate hedging activity (\$22 million). Interest expense in 1992 totaled \$146 million, a decrease of \$82 million from 1991. The decrease resulted from debt reductions.

### **Provision for Income Taxes**

The effective tax rate for 1993 was 34.4 percent as opposed to 25.3 percent in 1992. The higher rate in the current year reflects taxes provided on the sale of stock of certain OSi international subsidiaries, and other foreign provisions, as well as reduced Foreign Sales Corporation benefits and a higher U.S. statutory tax rate. The effective tax rate for 1992 reflected research and development tax credits, foreign sales corporation benefits, reduced taxes from joint venture partnerships and income from foreign affiliates taxed at lower than statutory rates. The corporation reported a credit for income taxes of \$50 million for 1991, representing 34.0 percent of the before-tax loss in the period.

### **Net Income (Loss) from Investments Carried at Equity**

In 1993 the corporation's share of net income from its investments carried at equity totaled \$16 million in contrast to losses of \$14 million and \$21 million in 1992 and 1991, respectively. The improvement was due primarily to cost-reduction efforts along with some pricing recovery at UCAR. In 1992 and 1991 UCAR's operations suffered as a result of excess capacity in the graphite electrode business aggravated by the difficult economic conditions experienced by its principal customers in the steel industry. In addition, in 1991 a \$10 million after-tax charge was recognized representing UCC's share of losses related to restructuring of certain carbon production facilities.

### **Income from Discontinued Operations**

Income from discontinued operations for 1992 reflects the net income of Praxair for the first six months of 1992, prior to the June 30 spin-off. At that time Praxair became a separate public company. The 1991 results reflect a full year of Praxair operations.

### **Accounting Changes**

In 1993 the corporation recorded a noncash after-tax charge of \$97 million as a result of adopting FAS 112. The charge represents the cumulative effect of the accounting standard for years prior to 1993 and is set forth separately in the statement of income. In 1992 the corporation recorded a noncash after-tax charge of \$360 million as a result of adopting FAS 106 and a tax charge of \$1 million as a result of adopting FAS 109.

## **LIQUIDITY, CAPITAL RESOURCES AND OTHER FINANCIAL DATA**

### **Cash Flow from Operations**

Cash flow from operations increased by \$177 million to \$457 million in 1993 as compared to 1992, reflecting the effect of the corporation's efforts in reducing both its operating costs and debt service while maintaining tight controls over accounts receivable and inventories.

### **Cash Flow from (Used for) Investing**

Cash flow from (used for) investing includes capital expenditures, investments, proceeds from the sale of assets and businesses and net cash received from (transferred to) Praxair. Net investing proceeds decreased \$1.010 billion in 1993, reflecting the payment of approximately \$1 billion in debt due from Praxair in connection with the spin-off.

Capital expenditures for 1993 totaled \$395 million compared to \$359 in 1992 and \$400 million in 1991. Major domestic capital projects in 1993 included the 650 million-pound-per-year UNIPOL Process polyethylene facility at the Star plant in Taft, La., and the TRITON surfactants unit at the South Charleston, W. Va., plant, as well as the purchase of a distribution vessel previously operated under a high-cost contractual arrangement. Major capital expenditures in 1992 and 1991 included the conversion of an ethylene oxide plant to an oxygen process facility, expansion of acrolein derivatives capacity and the purchase of an air separation unit, all at Taft, La., and the rebuilding of an ethylene oxide facility at Seadrift, Tex. Over the last three years, 25 percent of capital expenditures was directed to new capacity, 52 percent to cost reduction and replacement, and 23 percent to environmental, safety and health facilities. Of these expenditures, 90 percent were in the U.S. and Puerto Rico.

Investments during 1993 totaled \$39 million including a \$13 million investment in Petromont. Investments in 1992 included \$30 million to UCAR.

Proceeds from sale of assets in 1993 include \$220 million related to the sale of the OSi business and \$18 million from the sale of a corporate aircraft. In 1992 proceeds included receipt of \$50 million from a licensee in settlement of a receivable and \$9 million relating to the sale of an aircraft. Proceeds from the sale of investments in 1992 included \$44 million from the sale of the corporation's investment in a casualty insurance company, \$32 million from the sale of a Canadian investment and \$17 million from the remaining interest in KEMET Electronics. In 1991, proceeds from the sale of assets included \$233 million

from Mitsubishi Corporation in connection with the sale of 50 percent of the corporation's equity in UCAR, and collection of \$205 million on a note from UCAR.

At Dec. 31, 1993, the cost of completing authorized construction projects was estimated to be \$470 million of which \$29 million is covered by firm commitments. Future construction expenditures are anticipated to be sourced through operating cash flows.

### Cash Flow Used for Financing

Cash flow used for financing includes stockholder dividends, funds used to buy back common stock and debt reduction, offset in part by proceeds from sales of common stock pursuant to the corporation's dividend reinvestment plan and its employee savings and incentive programs.

Cash flow used for financing in 1993 totaled \$378 million compared to \$1.041 billion in 1992 and \$569 million in 1991. Over the past three years cash totaling \$1.650 billion was used to reduce debt to its present level of \$966 million. During the same period \$409 million was paid to preferred and common stockholders. In 1993 the Board of Directors announced that it had authorized the repurchase of up to 10 million shares of UCC common stock. As of Dec. 31, 1993, the corporation had repurchased 3,687,800 shares for \$70 million, at an average effective price of \$18.87 per share.

At Dec. 31, 1993, there were no outstanding borrowings under the existing major credit agreement of \$600 million. The corporation had no commercial paper outstanding at Dec. 31, 1993. The corporation has guaranteed the payment of principal and interest on all debt of Union Carbide Chemicals and Plastics Company Inc., a wholly owned subsidiary of the corporation.

### Debt Ratios

Total debt outstanding at year-end for the past three years was:

Dollar amounts in millions	1993	1992	1991
Domestic.....	\$895	\$1,274	\$1,962
International .....	71	197	480
<b>Total .....</b>	<b>\$966</b>	<b>\$1,471</b>	<b>\$2,442</b>

Year-end ratios of total debt to total capital were:

	1993	1992	1991
Debt ratio.....	40.3%	54.3%	52.0%

Total debt consists of short-term debt, long-term debt and the current portion of long-term debt. Total capital consists of total debt plus minority stockholders' equity in consolidated subsidiaries and UCC stockholders' equity.

# Quarterly Data

Union Carbide Corporation and Subsidiaries

Millions of dollars	1Q <sup>a,b</sup>	2Q <sup>b</sup>	3Q	4Q	Year
<b>1993</b>					
Net sales .....	\$1,193	\$1,244	\$1,130	\$1,073	\$4,640
Cost of sales .....	892	969	889	839	3,589
Gross profit .....	301	275	241	234	1,051
Depreciation and amortization .....	76	68	66	66	276
Income from continuing operations .....	42	41	38	44	165
Cumulative effect of change in accounting principle .....	(97)	-	-	-	(97)
Net income (loss) - common stockholders .....	(57)	38	36	41	58

<b>1992</b>					
Net sales .....	\$1,187	\$1,257	\$1,241	\$1,187	\$4,872
Cost of sales .....	888	985	976	915	3,764
Gross profit .....	299	272	265	272	1,108
Depreciation and amortization .....	76	73	70	74	293
Income from continuing operations .....	42	36	22	19	119
Cumulative effect of change in accounting principles .....	(361)	-	-	-	(361)
Net income (loss) - common stockholders .....	(291)	67	20	17	(187)

Dollars per common share	1Q <sup>a</sup>	2Q	3Q	4Q	Year
<b>1993</b>					
Primary income from continuing operations .....	\$ 0.28	\$ 0.24	\$ 0.23	\$ 0.26	\$ 1.00
Cumulative effect of change in accounting principle .....	(0.69)	-	-	-	(0.64)
Primary net income (loss) .....	(0.41)	0.24	0.23	0.26	0.36
Fully diluted net income <sup>c</sup> .....	-	0.24	0.22	0.25	-
Cash dividends .....	0.1875	0.1875	0.1875	0.1875	0.75
Market price - high .....	18.00	20.63	19.50	23.13	23.13
Market price - low .....	16.00	17.63	17.63	19.25	16.00

<b>1992</b>					
Primary income from continuing operations .....	\$ 0.27	\$ 0.24	\$ 0.14	\$ 0.12	\$ 0.76
Cumulative effect of change in accounting principles .....	(2.81)	-	-	-	(2.73)
Primary net income (loss) <sup>c</sup> .....	(2.28)	0.50	0.14	0.12	(1.46)
Cash dividends .....	0.25	0.25	0.1875	0.1875	0.875
Special distribution of Praxair common stock <sup>d</sup> .....	-	15.875	-	-	15.875
Market price - high <sup>d</sup> .....	25.38	29.63	15.00	17.13	17.13
Market price - low <sup>d</sup> .....	20.13	23.25	10.88	12.00	10.88

a) Restated to show the effect of the adoption of FAS 112 as of Jan. 1, 1993 (see Note 1 on page 25).

b) Certain costs have been reclassified from *Other expense (income)* to *Cost of sales*.

c) The fully diluted per share amounts are not presented where amounts are antidilutive.

d) On June 30, 1992, the corporation completed the spin-off of Praxair, distributing to holders of common stock one share of Praxair valued at \$15.875 for each share of UCC common stock. The high and low presented for the first and second quarters represent the value of stock before the spin-off. The high and low for the third and fourth quarters and the year represent the value of the common stock after the spin-off. Prices are based on New York Stock Exchange Composite Transactions.

# Selected Financial Data

Union Carbide Corporation and Subsidiaries

Dollar amounts in millions (except per share figures), year ended December 31,	1993	1992	1991	1990	1989	1988
<b>From the Income Statement</b>						
Net sales .....	\$4,640	\$4,872	\$4,877	\$5,238	\$5,613	\$5,525
Cost of sales <sup>a</sup> .....	3,589	3,764	3,787	3,876	3,909	3,696
Research and development .....	139	155	157	157	143	124
Selling, administration and other expenses .....	340	383	408	466	442	394
Depreciation and amortization .....	276	293	287	278	261	255
Interest on long-term and short-term debt .....	70	146	228	269	268	172
Pre-tax income (loss) from continuing operations .....	227	178	(147)	365	780	978
Provision (credit) for income taxes .....	78	45	(50)	130	257	381
UCC share of net income (loss) from corporate investments carried at equity .....	16	(14)	(21)	(42)	27	33
Income (loss) from continuing operations .....	165	119	(116)	188	530	608
Income from discontinued operations .....	-	67	107	120	43	54
Cumulative effect of change in accounting principles .....	(97)	(361)	-	-	-	-
Net Income (loss) - common stockholders .....	58	(187)	(28)	308	573	662
Per common share						
Primary						
- Income (loss) from continuing operations .....	\$ 1.00	\$ 0.76	\$ (1.06)	\$ 1.34	\$ 3.76	\$ 4.48
- Net income (loss) .....	0.36	(1.46)	(0.22)	2.19	4.07	4.88
Fully diluted <sup>b</sup>						
- Income from continuing operations .....	\$ -	\$ -	\$ -	\$ 1.34	\$ 3.63	\$ 4.29
- Net income .....	\$ -	-	-	2.13	3.92	4.66
<b>From the Balance Sheet (At Year-End)</b>						
Net current assets of continuing operations .....	\$ 233	\$ 66	\$ 209	\$ 7	\$ 22	\$ 14
Total assets .....	4,689	4,941	6,826	7,389	7,355	7,327
Long-term debt .....	931	1,113	1,160	2,058	2,060	2,271
Other long-term obligations .....	379	277	428	357	572	594
Total capital .....	2,395	2,710	4,694	5,338	5,319	4,805
UCC stockholders' equity .....	1,428	1,238	2,239	2,373	2,383	1,836
UCC stockholders' equity per common share .....	9.49	9.32	17.55	18.88	16.83	13.34
<b>Other Data</b>						
Cash dividends on common stock .....	\$ 110	\$ 114	\$ 126	\$ 138	\$ 140	\$ 155
Cash dividends per common share .....	0.75	0.875	1.00	1.00	1.00	1.15
Special distribution .....	-	15.875	-	-	-	-
Market price per common share - high <sup>c</sup> .....	23.13	17.13 <sup>d</sup>	22.63	24.88	33.25	28.38
Market price per common share - low <sup>c</sup> .....	16.00	10.88 <sup>d</sup>	15.13	14.13	22.75	17.00
Common shares outstanding (thousands at year-end) .....	150,548	132,865	127,607	125,674	141,578	137,602
Capital expenditures .....	395	359	400	381	483	380
Employees - continuing operations (at year-end) .....	13,051	15,075	16,705	17,722	18,032	17,258
<b>Selected Financial Ratios</b>						
Total debt/total capital (at year-end) .....	40.3%	54.3%	52.0%	54.0%	49.9%	56.1%
Return on capital <sup>e</sup> .....	7.7%	6.9%	-	8.4%	21.2%	24.5%
Income from continuing operations/ average UCC stockholders' equity .....	12.4%	6.8%	-	7.9%	25.1%	39.4%
Cash dividends on common stock/income from continuing operations .....	66.7%	95.8%	-	73.4%	26.4%	25.5%

a) Certain costs have been reclassified from *Other expense (income)* to *Cost of sales*.

b) Fully diluted per share amounts are not presented where amounts are antidilutive.

c) Prices are based on New York Stock Exchange Composite Transactions.

d) On June 30, 1992, the corporation completed the spin-off of Praxair, distributing to holders of common stock one share of Praxair common stock for each share of UCC common stock. The high and low presented in the table for 1992 represent the value of the common stock after the spin-off. The high for the year before the spin-off was \$29.63; the low before the spin-off was \$20.13.

e) Return on capital is computed by dividing income by beginning of year capital. Income consists of *Income (loss) from continuing operations*, less preferred dividends, plus after-tax interest cost (net of interest income received from Praxair), plus income from minority interests. Capital consists of the components described below, adjusted for the corporation's Praxair-related assets and the cumulative effect of the changes in accounting principles.

*Total debt* consists of short-term debt, long-term debt and current portion of long-term debt. *Total capital* consists of *Total debt* plus *Minority stockholders' equity* in consolidated subsidiaries and *UCC stockholders' equity*.

# Consolidated Statement of Income

Union Carbide Corporation and Subsidiaries

Millions of dollars (except per share figures), year ended December 31,

	1993	1992	1991
<b>Net Sales</b>	<b>\$4,640</b>	<b>\$4,872</b>	<b>\$4,877</b>
Cost of sales, exclusive of depreciation and amortization shown separately below	3,589	3,764	3,787
Research and development	139	155	157
Selling, administration and other expenses	340	383	408
Depreciation and amortization	276	293	287
Interest on long-term and short-term debt	70	146	228
Other expense (income)	(1)	(47)	157
<b>Income (Loss) before Provision for Income Taxes – Continuing Operations</b>	<b>227</b>	<b>178</b>	<b>(147)</b>
Provision (credit) for income taxes	78	45	(50)
<b>Income (Loss) of Consolidated Companies – Continuing Operations</b>	<b>149</b>	<b>133</b>	<b>(97)</b>
Less: Minority stockholders' share of loss	-	-	(2)
Plus: Union Carbide share of net income (loss) from corporate investments carried at equity	16	(14)	(21)
<b>Income (Loss) from Continuing Operations</b>	<b>\$ 165</b>	<b>\$ 119</b>	<b>\$ (116)</b>
Income from discontinued operations, net of income taxes and minority interest	-	67	107
<b>Net Income (Loss) before Cumulative Effect of Change in Accounting Principles</b>	<b>\$ 165</b>	<b>\$ 186</b>	<b>\$ (9)</b>
Cumulative effect of change in accounting principles	(97)	(361)	-
<b>Net Income (Loss)</b>	<b>68</b>	<b>(175)</b>	<b>(9)</b>
Preferred stock dividends, net of income taxes	10	12	19
<b>Net Income (Loss) – Common Stockholders</b>	<b>\$ 58</b>	<b>\$ (187)</b>	<b>\$ (28)</b>
<b>Earnings per Common Share<sup>a</sup></b>			
Primary – Income (loss) from continuing operations	\$ 1.00	\$ 0.76	\$ (1.06)
– Income from discontinued operations	\$ -	\$ 0.51	\$ 0.84
– Cumulative effect of change in accounting principles	\$ (0.64)	\$ (2.73)	\$ -
– Net income (loss) – common stockholders	\$ 0.36	\$ (1.46)	\$ (0.22)
<b>Cash Dividends Declared per Common Share</b>	<b>\$ 0.75</b>	<b>\$ 0.875</b>	<b>\$ 1.00</b>

a) Fully diluted per share amounts are not presented since amounts are antidilutive.

The Notes to Financial Statements on pages 25 through 37 should be read in conjunction with this statement.

# Consolidated Balance Sheet

Union Carbide Corporation and Subsidiaries

Millions of dollars at December 31,

	1993	1992
<b>Assets</b>		
Cash and cash equivalents .....	\$ 108	\$ 171
Notes and accounts receivable .....	689	748
Inventories .....		
Raw materials and supplies .....	104	121
Work in process .....	52	56
Finished goods .....	229	279
	385	456
Prepaid expenses .....	247	204
<b>Total Current Assets</b> .....	<b>1,429</b>	<b>1,579</b>
Property, plant and equipment .....	5,626	5,730
Less: Accumulated depreciation .....	3,206	3,191
<b>Net Fixed Assets</b> .....	<b>2,420</b>	<b>2,539</b>
Companies carried at equity .....	437	475
Other investments and advances .....	137	58
<b>Total Investments and Advances</b> .....	<b>574</b>	<b>533</b>
Other assets .....	266	290
<b>Total Assets</b> .....	<b>\$4,689</b>	<b>\$4,941</b>
<b>Liabilities and Stockholders' Equity</b>		
Accounts payable .....	\$ 310	\$ 375
Short-term debt .....	24	324
Payments to be made within one year on long-term debt .....	11	34
Accrued income and other taxes .....	189	162
Other accrued liabilities .....	662	618
<b>Total Current Liabilities</b> .....	<b>1,196</b>	<b>1,513</b>
Long-term debt .....	931	1,113
Postretirement benefit obligation .....	489	508
Other long-term obligations .....	379	277
Deferred credits .....	230	263
Convertible preferred stock .....	150	152
Unearned employee compensation .....	(114)	(123)
UCC stockholders' equity .....		
Common stock .....		
Authorized - 500,000,000 shares .....		
Issued - 154,609,669 shares (135,513,389 shares in 1992) .....	155	136
Additional paid-in capital .....	366	100
Equity adjustment from foreign currency translation .....	(84)	(71)
Retained earnings .....	1,067	1,119
	1,504	1,284
Less: Treasury stock, at cost - 4,062,189 shares (2,648,837 shares in 1992) .....	76	46
<b>Total UCC Stockholders' Equity</b> .....	<b>1,428</b>	<b>1,238</b>
<b>Total Liabilities and Stockholders' Equity</b> .....	<b>\$4,689</b>	<b>\$4,941</b>

The Notes to Financial Statements on pages 25 through 37 should be read in conjunction with this statement.

# Consolidated Statement of Cash Flows

Union Carbide Corporation and Subsidiaries

Increase (Decrease) in Cash and Cash Equivalents			
Millions of dollars, year ended December 31,	1993	1992	1991
<b>Operations</b>			
Income (loss) from continuing operations .....	\$ 165	\$ 119	\$ (116)
Noncash charges (credits) to net income			
Depreciation and amortization .....	276	293	287
Deferred income taxes .....	(34)	(44)	(52)
Other noncash charges <sup>a</sup> .....	65	8	225
Investing (debits) credits to net income .....	(52)	(59)	20
Working capital <sup>b</sup> .....	(9)	2	(21)
Long-term assets and liabilities .....	46	(39)	138
<b>Cash Flow from Operations .....</b>	<b>457</b>	<b>280</b>	<b>481</b>
<b>Investing</b>			
Capital expenditures .....	(395)	(359)	(400)
Investments .....	(39)	(69)	(47)
Sale of investments .....	29	101	102
Sale of fixed and other assets .....	266	132	454
Net cash transferred from (to) Praxair, Inc. ....	-	1,066	(7)
<b>Cash Flow from (Used for) Investing .....</b>	<b>(139)</b>	<b>871</b>	<b>102</b>
<b>Financing</b>			
Change in short-term debt (three months or less) .....	(263)	(260)	(430)
Proceeds from short-term debt .....	-	203	931
Repayment of short-term debt .....	(36)	(222)	(380)
Proceeds from long-term debt .....	320	324	203
Repayment of long-term debt .....	(262)	(1,022)	(756)
Issuance of common stock .....	57	73	35
Purchase of common stock .....	(70)	-	-
Repurchase of convertible preferred stock .....	-	(202)	-
Repayment of loan by ESOP .....	-	202	-
Payment of dividends .....	(124)	(130)	(155)
Other .....	-	(7)	(17)
<b>Cash Flow Used for Financing .....</b>	<b>(378)</b>	<b>(1,041)</b>	<b>(569)</b>
Effect of exchange rate changes on cash and cash equivalents .....	(3)	(3)	(4)
Change in cash and cash equivalents .....	(63)	107	10
Cash and cash equivalents beginning-of-year .....	171	64	54
<b>Cash and cash equivalents end-of-year .....</b>	<b>\$ 108</b>	<b>\$ 171</b>	<b>\$ 64</b>
<b>Cash Paid for Interest and Income Taxes</b>			
Interest (net of amount capitalized) .....	\$ 67	\$ 174	\$ 237
Income taxes .....	\$ 44	\$ 59	\$ 57
a) Includes \$209 million noncash charge in 1991 relating to the corporation's profit improvement program (see note 4 on page 28).			
b) Net change in working capital by component (excluding cash and cash equivalents, due from Praxair and from UCAR, deferred income taxes and short-term debt):			
	1993	1992	1991
(Increase) decrease in current assets			
Notes and accounts receivable .....	\$ 5	\$ 73	\$ 211
Inventories .....	11	71	26
Prepaid expenses .....	16	(13)	(23)
Decrease in payables and accruals .....	(41)	(129)	(235)
Working capital .....	\$ (9)	\$ 2	\$ (21)

The Notes to Financial Statements on pages 25 through 37 should be read in conjunction with this statement.

# Consolidated Statement of Stockholders' Equity

Union Carbide Corporation and Subsidiaries

	1993		1992		1991	
	Shares (in thousands)	Millions of dollars	Shares (in thousands)	Millions of dollars	Shares (in thousands)	Millions of dollars
<b>Common Stock</b>						
<b>Balance at January 1</b>	<b>135,513</b>	<b>\$ 136</b>	130,256	\$ 130	128,339	\$ 128
Issued:						
For the Dividend Reinvestment and Stock Purchase Plan	134	-	483	1	587	1
For employee savings and incentive plans	2,463	2	4,742	5	1,330	1
Conversion of debentures	16,500	17	32	-	-	-
<b>Balance at December 31</b>	<b>154,610</b>	<b>\$ 155</b>	135,513	\$ 136	130,256	\$ 130
<b>Additional Paid-in Capital</b>						
<b>Balance at January 1</b>		<b>\$ 100</b>		\$ 33		\$ -
Proceeds from the sale of put options		1		-		-
Reclassification of put option obligations		(2)		-		-
Issued:						
For the Dividend Reinvestment and Stock Purchase Plan		2		9		11
For employee savings and incentive plans		19		58		22
Conversion of debentures		246		-		-
<b>Balance at December 31</b>		<b>\$ 366</b>		\$ 100		\$ 33
<b>Equity Adjustment from Foreign Currency Translation</b>						
<b>Balance at January 1</b>		<b>\$ (71)</b>		\$ (8)		\$ 7
Translation and other adjustments		(11)		(47)		(13)
Praxair spin-off		-		(16)		-
Sale of businesses		(2)		-		(2)
<b>Balance at December 31</b>		<b>\$ (84)</b>		\$ (71)		\$ (8)
<b>Retained Earnings</b>						
<b>Balance at January 1</b>		<b>\$1,119</b>		\$2,130		\$2,284
Net income (loss) - common stockholders		58		(187)		(28)
Dividends on spin-off of Praxair		-		(710)		-
Cash dividends on common stock		(110)		(114)		(126)
<b>Balance at December 31</b>		<b>\$1,067</b>		\$1,119		\$2,130
<b>Less: Treasury Stock</b>						
<b>Balance at January 1</b>	<b>2,649</b>	<b>\$ 46</b>	2,649	\$ 46	2,665	\$ 46
Common Stock repurchase program	3,688	71	-	-	-	-
Issued:						
For the Dividend Reinvestment and Stock Purchase Plan	(322)	(6)	-	-	-	-
For Employee savings and incentive plans	(1,953)	(35)	-	-	-	-
For business combinations	-	-	-	-	(16)	-
<b>Balance at December 31</b>	<b>4,062</b>	<b>\$ 76</b>	2,649	\$ 46	2,649	\$ 46
<b>Total stockholders' equity</b>		<b>\$1,428</b>		\$1,238		\$2,239

The Notes to Financial Statements on pages 25 through 37 should be read in conjunction with this statement.

# Notes to Financial Statements

## 1. Summary of Significant Accounting Policies

**Principles of Consolidation** – The consolidated financial statements include the accounts of all significant subsidiaries. All significant intercompany transactions have been eliminated in consolidation. Investments in 20 percent to 50 percent-owned companies and partnerships are carried at equity in net assets. In the Consolidated Statement of Income, the corporation's share of the net income of companies carried at equity is reported under the caption *Union Carbide share of net income (loss) from corporate investments carried at equity*. Before-tax partnership income is included in *Other expense (income)*. Other investments are carried generally at cost.

**Accounting and Reporting Changes** – Effective Jan. 1, 1993, the corporation adopted Financial Accounting Standard (FAS) 112, "Employers' Accounting for Postemployment Benefits." The cumulative effect of the change in the method of accounting for postemployment benefits is reported in the 1993 Consolidated Statement of Income. Effective Jan. 1, 1992, the corporation adopted FAS 106, "Employers' Accounting for Postretirement Benefits Other Than Pensions," and FAS 109, "Accounting for Income Taxes." The cumulative effects of the changes in the method of accounting for postretirement benefits and income taxes are reported in the 1992 Consolidated Statement of Income.

**Foreign Currency Translation** – Generally, except for Latin America, unrealized gains and losses resulting from translating foreign subsidiaries' assets and liabilities into U.S. dollars are accumulated in an equity account on the balance sheet until such time as the subsidiary is sold, or substantially or completely liquidated. Translation gains and losses relating to operations of subsidiaries in Latin America, where hyperinflation exists, are included in the income statement.

**Financial Instruments** – Financial instruments are used to hedge financial risk caused by fluctuating interest and currency rates. The amounts to be paid or received on swap agreements accrue and are recognized over the lives of the agreements. The premiums and discounts on forward exchange contracts are amortized over the lives of the contracts.

The corporation also enters into interest rate swaps and foreign currency transactions as a means of offsetting earnings fluctuations due to cyclical business conditions. These transactions are marked to market and the results recognized immediately as other income or other expense.

### Cash

**Equivalents** – The corporation considers as cash equivalents all highly liquid investments that are readily convertible to known amounts of cash and so near their maturity that they present insignificant risk of changes in value because of changes in interest rates.

**Inventories** – Inventories are stated at cost or market, whichever is lower. These amounts do not include depreciation and amortization, the impact of which is not significant to the financial statements.

Approximately 66 percent of inventory amounts before application of the LIFO method at Dec. 31, 1993 and Dec. 31, 1992, have been valued on the LIFO basis; the "average cost" method is used for the balance. It is estimated that if inventories had been valued at current costs, they would have been approximately \$287 million and \$327 million higher than reported at Dec. 31, 1993, and Dec. 31, 1992, respectively. The decrease in current costs in 1993 is due mainly to the sale of the OrganoSilicon business.

**Fixed Assets** – Fixed assets are carried at cost. Expenditures for replacements are capitalized, and the replaced items are retired. Gains and losses from the sale of property are included in income.

Depreciation is calculated on a straight-line basis. The corporation and its subsidiaries generally use accelerated depreciation methods for tax purposes where appropriate.

**Patents, Trademarks and Goodwill** – Amounts paid for purchased patents and newly acquired subsidiaries in excess of the fair value of the net assets of such subsidiaries have been charged to patents, trademarks and goodwill. The portion of such amounts determined to be attributable to patents is amortized over their remaining lives, while trademarks and goodwill are amortized over the estimated period of benefit, generally 5 to 20 years.

**Research and Development** – Research and development costs are charged to expense as incurred. Depreciation expense applicable to research and development facilities and equipment is included in *Depreciation and amortization* in the Consolidated Statement of Income (\$12 million in 1993, \$13 million in 1992 and 1991).

**Income Taxes** – In 1993 and 1992 provisions have been made, pursuant to FAS 109, for deferred income taxes based on differences between financial statement and tax bases of assets and liabilities using presently enacted tax rates and regulations. Also included in 1992 is the cumulative effect of the adoption of FAS 109. Prior to 1992, provisions were made for deferred income taxes based on differences existing between the period in which transactions affected taxable income and the period in which they entered into the determination of income in the financial statements.

**Environmental Costs** – Environmental expenditures are expensed or capitalized as appropriate, depending upon their future economic benefit. Expenditures relating to an existing condition caused by past operations and having no future economic benefits are expensed. Environmental expenditures include site investigation, physical remediation, operation and maintenance, and legal and administrative costs. Environmental accruals are established for sites where it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Where the estimate is a range and no amount within the range is a better estimate than any other amount, the corporation accrues the minimum amount in the range.

**Retirement Programs** – The cost of pension benefits under the U.S. Retirement Program is determined by an independent actuarial firm using the “projected unit credit” actuarial cost method, with an unrecognized net asset at Jan. 1, 1986, amortized over 15 years. Contributions to this program are made in accordance with the regulations of the Employee Retirement Income Security Act of 1974.

Pursuant to FAS 106, the cost of postretirement benefits are recognized on the accrual basis over the period in which employees become eligible for benefits.

**Earnings per Common Share** – Primary earnings per common share is computed by dividing net income (loss) - common stockholders, excluding tax benefits related to unallocated preferred stock dividends, by the weighted average number of common shares outstanding during the year and common stock equivalents related to dilutive stock options. Fully diluted earnings per common share is computed by dividing adjusted net income (loss) - common stockholders by the weighted average number of common shares outstanding, common stock equivalents related to dilutive stock options, and common shares issuable upon conversion of debentures and convertible preferred stock.

## 2. Financial Instruments

Fair values of financial instruments must often be determined by using one or more methods that indicate value based on estimates of quantifiable characteristics as of a particular date. The fair values of the financial instruments included on the Consolidated Balance Sheet were estimated as follows.

**Cash, Short-Term Receivables and Accounts Payable** – At Dec. 31, 1993 and 1992, the carrying amounts approximate fair value because of the short maturity of these instruments.

**Long-Term Receivables** – The fair values of long-term receivables are calculated using current interest rates and consideration of underlying collateral where appropriate. The fair values approximate the carrying value of \$96 million and \$86 million reported in the Consolidated Balance Sheet at Dec. 31, 1993 and 1992, respectively.

**Debt** – As discussed in Note 11, fair values of debt and related interest rate swap agreements and forward rate agreements approximate carrying value at both Dec. 31, 1993 and 1992.

**Investments** – The corporation's investments in equity companies, partnerships and other investees generally involve joint ventures for specific objectives for which it is not practicable to determine fair values.

**Other Financial Instruments** – Foreign currency forward contracts, currency options (both written and purchased), and interest rate swaps and forward rate agreements, which are designed to offset earnings fluctuations due to cyclical business conditions, are carried at fair market value. At Dec. 31, 1993, the gross amount of foreign currency forward contracts outstanding was \$269 million (\$390 million at Dec. 31, 1992). There were no written or purchased foreign currency options outstanding at Dec. 31, 1993. The amount of purchased foreign currency options outstanding was \$213 million at Dec. 31, 1992, and the amount of written options was \$89 million at Dec. 31, 1992. At Dec. 31, 1993, the net notional amount of interest rate swaps was \$615 million and the net notional amount of related forward rate agreements was \$1.3 billion. There were no such swaps and forward rate agreements outstanding at Dec. 31, 1992.

These transactions have a net recorded fair market value of \$1 million at Dec. 31, 1993 (\$4 million at Dec. 31, 1992).

### 3. Geographic Segment Information

Millions of Dollars			
<b>Net Sales</b>	<b>1993</b>	1992	1991
United States & Puerto Rico <sup>a</sup>	<b>\$3,443</b>	\$3,529	\$3,530
Canada	<b>130</b>	137	158
Europe	<b>454</b>	550	550
Latin America	<b>241</b>	222	200
Far East & Other	<b>372</b>	434	439
International operations	<b>1,197</b>	1,343	1,347
<b>Total UCC Consolidated</b>	<b>\$4,640</b>	<b>\$4,872</b>	<b>\$4,877</b>

a) Includes export sales of \$604 million in 1993 (\$560 million in 1992 and \$568 million in 1991).

<b>Operating Profit (Loss)</b>	<b>1993</b>	1992	1991
United States & Puerto Rico	<b>\$ 359</b>	\$ 275	\$ 89
Canada	<b>(53)</b>	(14)	(22)
Europe	<b>18</b>	13	4
Latin America	<b>6</b>	8	13
Far East & Other	<b>25</b>	30	27
International operations	<b>(4)</b>	37	22
Inter-segment eliminations	<b>(1)</b>	4	11
<b>Total UCC Consolidated</b>	<b>\$ 354</b>	<b>\$ 316</b>	<b>\$ 122</b>

<b>Identifiable Assets</b>	<b>1993</b>	1992	1991
United States & Puerto Rico	<b>\$3,579</b>	\$3,575	\$3,712
Canada	<b>263</b>	367	361
Europe	<b>255</b>	316	351
Latin America	<b>140</b>	151	140
Far East & Other	<b>210</b>	213	317
International operations	<b>868</b>	1,047	1,169
Inter-segment eliminations	<b>(28)</b>	(53)	(120)
<b>Total UCC Consolidated</b>	<b>\$4,419</b>	<b>\$4,569</b>	<b>\$4,761</b>

The following table reconciles identifiable assets with the consolidated financial statements:

Millions of Dollars			
	<b>1993</b>	1992	1991
Identifiable assets	<b>\$4,419</b>	\$4,569	\$4,761
Investments and advances	<b>162</b>	176	271
Corporate assets	<b>108</b>	196	106
Due from Praxair, Inc.	<b>-</b>	-	1,038
Net assets of discontinued business	<b>-</b>	-	650
<b>Total UCC Consolidated</b>	<b>\$4,689</b>	<b>\$4,941</b>	<b>\$6,826</b>

The following table reconciles operating profit with the consolidated financial statements.

Millions of Dollars			
	<b>1993</b>	1992	1991
Operating profit	<b>\$354</b>	\$316	\$122
Less: General expenses (income) - net	<b>57</b>	(8)	41
Interest on long-term and short-term debt	<b>70</b>	146	228
<b>Income (loss) before provision for income taxes - continuing operations</b>	<b>\$227</b>	<b>\$178</b>	<b>\$(147)</b>

Operating profit in 1993 includes the corporation's share of income before income taxes of \$67 million from partnerships (\$60 million income in 1992 and a \$22 million loss in 1991).

In addition, the 1993 operating profit includes a \$54 million gain from the sale of the corporation's OrganoSilicon business; a \$46 million charge from the shutdown of an ethylene oxide/glycol manufacturing facility at Montreal East, Canada; a \$9 million loss on the sale of Vitaphore Corporation, a medical device company; and a \$9 million loss on the write-down of a Canadian business.

The 1992 operating profit included a charge of \$35 million for additional severance expense associated with the corporation's profit improvement program and income of \$25 million from the settlement of a patent infringement case.

The 1991 operating profit included charges totaling \$165 million relating to severance and relocation costs, joint venture charges and the sale and wind-down of the transformer retrofill service business of the Unison subsidiary.

#### 4. Other Expense (Income)

The following is an analysis of *Other expense (income)*:

Millions of Dollars	1993	1992	1991
Investment income (principally from short-term investments) .....	<b>\$(8)</b>	\$(17)	\$ (14)
Foreign currency adjustments .....	<b>31</b>	24	26
Severance and other charges <sup>a</sup> .....	-	35	149
Sales and disposals of businesses and other assets <sup>b</sup> .....	<b>14</b>	(45)	34
Partnership (income) loss <sup>c</sup> .....	<b>(67)</b>	(60)	22
Interest income from Praxair .....	-	(31)	(90)
Other <sup>d</sup> .....	<b>29</b>	47	30
	<b>\$(1)</b>	<b>\$(47)</b>	<b>\$157</b>

- a) Includes for 1992 a \$35 million charge representing severance expense. Includes for 1991 severance and relocation costs totaling \$118 million relating to staff reductions associated with work process simplification efforts, staff reductions triggered by the Praxair spin-off, asset sales and costs associated with consolidation of certain customer service functions and headquarters operations; \$20 million mainly associated with Bhopal-related civil litigation, including funding of the construction of a new hospital; and \$11 million representing costs of the Praxair spin-off.
- b) Includes for 1993 a \$54 million gain from the sale of the corporation's OrganoSilicon business; a \$46 million charge from the shutdown of an ethylene oxide/glycol manufacturing facility at Montreal East, Canada; a \$9 million loss on the sale of Vitaphore Corporation, a medical device company; a \$9 million loss on the write-down of a Canadian business; and a gain of \$8 million on the sale of a corporate aircraft. Includes for 1992 gains of \$34 million on the sales of the corporation's investments in a casualty insurance company, and \$8 million on the sale of a corporate aircraft. Includes for 1991 a charge of \$35 million in connection with the sale and wind-down of the transformer retrofit service business of Union.
- c) Includes for 1991 a \$60 million write-down of the corporation's share of UOP's fluid cracking catalyst business.
- d) Includes \$10 million, \$21 million and \$15 million, in 1993, 1992 and 1991, respectively, related to discontinued and noncore businesses.

#### 5. Spin-off of Praxair, Inc.

On June 30, 1992, the corporation completed the spin-off of its industrial gases subsidiary, Praxair, Inc. (Praxair). Under the terms of the spin-off, UCC distributed to its holders of common stock one share of Praxair common stock and an associated Praxair common stock purchase right (see Note 13) for each share of UCC common stock. The spin-off distribution reduced the corporation's stockholders' equity on June 30, 1992, by \$733 million; with subsequent adjustments, the amount at Dec. 31, 1992, was \$726 million. The conversion prices of the corporation's convertible debentures, convertible preferred stock and common stock purchase rights were adjusted for the dilutive effects of the spin-off (see Notes 11, 12 and 13).

The following is a summary of selected components of income from operations of Praxair.

Millions of Dollars	Six Months Ended June 30, 1992	Year Ended December 31, 1991
Net sales <sup>a</sup> .....	<b>\$1,315</b>	\$2,469
Income before provision for income taxes .....	<b>\$ 129</b>	\$ 207
Provision for income taxes .....	<b>43</b>	68
Minority interest .....	<b>25</b>	35
Net income from corporate investments carried at equity .....	<b>6</b>	3
<b>Net income</b> .....	<b>\$ 67</b>	<b>\$ 107</b>

- a) Includes net sales to the corporation of \$20 million for the first six months of 1992 and \$41 million in 1991.

#### 6. Union Carbide Chemicals and Plastics Company Inc.

UCC has unconditionally guaranteed the payment of principal and interest on all debt of Union Carbide Chemicals and Plastics Company Inc. (UCC&P) registered with the Securities and Exchange Commission. As of Jan. 1, 1994, UCC has guaranteed \$966 million of UCC&P debt.

The following is a financial summary of UCC&P and its consolidated subsidiaries:

Millions of Dollars	1993	1992	1991
Net sales .....	<b>\$4,640</b>	\$ 4,872	\$ 4,877
Cost of sales .....	<b>3,589</b>	3,775	3,802
Depreciation and amortization .....	<b>276</b>	291	283
Income (loss) from continuing operations .....	<b>155</b>	111	(114)
Cumulative effect of change in accounting principles .....	<b>(97)</b>	(332)	-
<b>Net income (loss)</b> .....	<b>58</b>	<b>(154)</b>	<b>(7)</b>
Current assets .....	<b>\$1,428</b>	\$ 1,577	
Noncurrent assets .....	<b>3,256</b>	3,357	
Total assets .....	<b>\$4,684</b>	\$ 4,934	
Current liabilities .....	<b>\$1,418</b>	\$ 1,468	
Noncurrent liabilities .....	<b>1,916</b>	2,048	
<b>Net assets</b> .....	<b>\$1,350</b>	<b>\$1,418</b>	

## 7. Income Taxes

As discussed in Note 1, the cumulative effect of the change in accounting for income taxes of \$1 million, determined as of Jan. 1, 1992, is reported in the Consolidated Statement of Income for the year ended Dec. 31, 1992. Prior years' financial statements have not been restated to apply provisions of FAS 109.

The following is a summary of the U.S. and NonU.S. components of *Income (loss) before provision for income taxes – continuing operations*:

Millions of Dollars	1993	1992	1991
Income (loss) before provision for income taxes:			
U.S. ....	\$235	\$147	\$(145)
NonU.S. ....	(8)	31	(2)
	<b>\$227</b>	<b>\$178</b>	<b>\$(147)</b>

The following is an analysis of income tax expense:

Millions of Dollars	1993		1992		1991	
	Current	Deferred	Current	Deferred	Current	Deferred
U.S. Federal income taxes .....	\$ 60	\$(21)	\$45	\$(28)	\$(21)	\$(53)
U.S. business and research and experimentation tax credits .....	(9)	-	(5)	-	(3)	-
U.S. state and local taxes based on income .....	19	2	18	(4)	13	-
NonU.S. income taxes .....	42	(15)	31	(12)	13	1
	<b>\$112</b>	<b>\$(34)</b>	<b>\$89</b>	<b>\$(44)</b>	<b>\$ 2</b>	<b>\$(52)</b>
<b>Provision (credit) for income taxes – continuing operations .....</b>	<b>\$78</b>		<b>\$45</b>		<b>\$(50)</b>	

The tax effects of temporary differences that gave rise to significant portions of the deferred tax assets and deferred tax liabilities at Dec. 31, 1993 and 1992, are as follows:

Millions of Dollars	December 31, 1993		December 31, 1992	
	Deferred Tax Assets	Deferred Tax Liabilities	Deferred Tax Assets	Deferred Tax Liabilities
Depreciation & amortization .....	\$ -	\$320	\$ -	\$363
Postretirement benefits other than pensions .....	214	-	213	-
Postemployment benefits and severance costs .....	62	-	32	-
Environmental and litigation .....	124	-	82	-
Sale/leaseback and related deferrals .....	47	-	66	-
Other .....	170	205	217	251
Gross deferred tax assets & liabilities .....	<b>\$617</b>	<b>\$525</b>	<b>\$610</b>	<b>\$614</b>
<b>Net deferred tax asset (liability) .....</b>		<b>\$92</b>		<b>\$(4)</b>

Net noncurrent deferred tax liabilities of \$78 million (\$107 million in 1992) are included in *Deferred credits* in the Consolidated Balance Sheet. Net current deferred tax assets of \$170 million (\$103 million in 1992) are included in *Prepaid expenses*. Included in the deferred tax assets above are U.S. alternative minimum tax credit carryforwards of approximately \$10 million (\$10 million as of Dec. 31, 1992), which are available to reduce future Federal regular income taxes, if any, over an indefinite period, and the tax effect of non-U.S. net operating loss carryforwards of \$8 million (\$11 million as of Dec. 31, 1992), which is offset by a \$2 million valuation allowance in 1993 (\$4 million as of Dec. 31, 1992).

Undistributed earnings of affiliates intended to be reinvested indefinitely amounted to approximately \$350 million at Dec. 31, 1993 (\$389 million as of Dec. 31, 1992). Determination of deferred taxes related to undistributed earnings of foreign affiliates that are intended to be reinvested indefinitely is not practicable.

The consolidated effective income tax rate was 34.4 percent in 1993, 25.3 percent in 1992 and 34.0 percent in 1991. An analysis of the difference between *Provision (credit) for income taxes* and the amount computed by applying the statutory Federal income tax rate to *Income (loss) before provision for income taxes - continuing operations* is as follows:

Millions of Dollars	Percent of pre-tax income (loss)		
	1993	1992	1991
Tax at statutory Federal rate .....	35.0%	34.0%	(34.0)%
Taxes related to operations outside the U.S. ....	3.1	(0.4)	7.4
U.S. state and local taxes based on income .....	5.7	5.6	(6.1)
Foreign sales corporation .....	(4.0)	(6.7)	3.4
Reversal of timing differences .....	-	-	(2.0)
Business credits .....	(4.0)	(2.8)	2.0
Other, net .....	(1.4)	(4.4)	(4.7)
	34.4%	25.3%	(34.0)%

The following table summarizes the tax effects of timing differences in 1991 included in the deferred portion of the provision for income taxes:

Millions of Dollars	1991
Pension adjustments .....	\$ 12
Depreciation and amortization .....	26
Environmental and litigation .....	(22)
Severance costs .....	(22)
Other, net .....	(46)
	<b>\$(52)</b>

## 8. Supplementary Balance Sheet Detail

Millions of Dollars at December 31,	1993	1992
<b>Notes and accounts receivable</b>		
Trade .....	\$ 555	\$ 628
Other .....	146	129
	<b>701</b>	<b>757</b>
Less: allowance for doubtful accounts .....	12	9
	<b>\$ 689</b>	<b>\$ 748</b>

<b>Property, plant and equipment</b>		
Land and improvements .....	\$ 287	\$ 299
Buildings .....	338	382
Machinery and equipment .....	4,656	4,693
Construction in progress and other .....	345	356
	<b>\$5,626</b>	<b>\$5,730</b>

<b>Other assets</b>		
Deferred charges .....	\$ 126	\$ 119
Long-term receivables .....	96	86
Patents, trademarks and goodwill .....	44	85
	<b>\$ 266</b>	<b>\$ 290</b>

<b>Other accrued liabilities</b>		
Accrued accounts payable .....	\$ 213	\$ 208
Payrolls .....	57	61
Severance and relocation costs .....	94	84
Other .....	298	265
	<b>\$ 662</b>	<b>\$ 618</b>

<b>Deferred credits</b>		
Income taxes .....	\$ 78	\$ 107
Deferred gains on sale/leasebacks .....	80	90
Other .....	72	66
	<b>\$ 230</b>	<b>\$ 263</b>

<b>Equity adjustment from foreign currency translation (by geographic area)</b>		
Canada .....	\$ (38)	\$ (29)
Europe .....	(39)	(27)
Far East & Other .....	(7)	(15)
	<b>\$ (84)</b>	<b>\$ (71)</b>

## 9. Interest Costs

The following is an analysis of *Interest on long-term and short-term debt*:

Millions of Dollars	1993	1992	1991
Interest incurred on debt.....	\$ 84	\$164	\$245
Less: Related foreign currency adjustments.....	4	3	3
Interest capitalized.....	10	15	14
	<b>\$ 70</b>	<b>\$146</b>	<b>\$228</b>

## 10. Companies Carried at Equity

The following are financial summaries of partnerships and 20 percent to 50 percent corporate investments carried at equity. The corporation's most significant partnerships include UOP, Petromont and Company Limited Partnership, World Ethanol Company and a Union Carbide/Shell polypropylene partnership.

Partnerships			
Millions of Dollars	1993	1992	1991
Net sales <sup>a</sup> .....	\$1,445	\$1,527	\$1,502
Cost of sales.....	863	902	1,029
Depreciation.....	50	59	47
Partnership income (loss).....	199	194	(14)
<b>Union Carbide share of partnership income (loss)<sup>b</sup>.....</b>	<b>\$ 67</b>	<b>\$ 60</b>	<b>\$ (22)</b>
Current assets.....	\$ 450	\$ 486	
Noncurrent assets.....	673	689	
Total assets.....	\$1,123	\$1,175	
Current liabilities.....	\$ 248	\$ 445	
Noncurrent liabilities.....	435	255	
Total liabilities.....	\$ 683	\$ 700	
Net assets.....	\$ 440	\$ 475	
<b>Union Carbide equity.....</b>	<b>\$ 234</b>	<b>\$ 262</b>	

a) Includes \$175 million net sales to Union Carbide Corporation in 1993 (\$171 million in 1992 and \$111 million in 1991).

b) Union Carbide share of partnership income (loss) has been reported in *Other expense (income)* (see Note 4).

Corporate investments carried at equity include UCAR International Inc., Nippon Unicar Company Limited and several smaller entities.

20% - 50% Corporate investments			
Millions of Dollars	1993	1992	1991
Net sales <sup>a</sup> .....	\$1,144	\$1,061	\$1,057
Cost of sales.....	823	834	840
Depreciation.....	55	58	53
Net income (loss).....	36	(82) <sup>b</sup>	(41)
<b>Union Carbide share of net income (loss).....</b>	<b>\$ 16</b>	<b>\$ (14)</b>	<b>\$ (21)</b>
Current assets.....	\$ 572	\$ 469	
Noncurrent assets.....	879	738	
Total assets.....	\$1,451	\$1,207	
Current liabilities.....	\$ 594	\$ 500	
Noncurrent liabilities.....	407	257	
Total liabilities.....	\$1,001	\$ 757	
Net assets.....	\$ 450	\$ 450	
<b>Union Carbide equity.....</b>	<b>\$ 203</b>	<b>\$ 213</b>	

a) Includes \$46 million net sales to the corporation in 1993 (\$63 million in 1992 and \$50 million in 1991).

b) Includes \$55 million after-tax charge representing UCAR's adoption of FAS 106 and FAS 109.

## 11. Long-Term Debt

Millions of Dollars at December 31,	1993	1992
<b>Domestic</b>		
5.30% Sinking fund debentures, with equal annual sinking fund payments to 1997 .....	\$ 50	\$ 62
6.75% Notes due 2003 .....	125	-
7.00% Notes due 1999 .....	175	175
7.50% Convertible subordinated debentures due 2012, convertible into common stock at \$15.79 per share .....	-	345
7.875% Debentures due 2023 .....	175	-
8.75% Debentures due 2022 .....	125	125
15.00% Senior debentures due 2006, issued at a premium (effective rate 14.32%) .....	-	12
Variable-rate, medium-term notes due 1996 .....	-	100
Pollution control and other facility obligations .....	249	245
Obligations under capital leases .....	19	24
Other .....	2	3
<b>International Subsidiaries</b>		
Obligations under capital leases .....	40	71
Other debt - various maturities and interest rates .....	7	17
	967	1,179
Less: bonds held for sinking fund .....	25	32
	942	1,147
Less: payments to be made within one year .....	11	34
	<b>\$931</b>	<b>\$1,113</b>

UCC and UCC&P have entered into a bank credit agreement as amended Aug. 2, 1993, for \$600 million. Commitments under the agreement are on a joint and several basis, and several options are available to borrow at various rates on a revolving basis. At Dec. 31, 1993, there were no outstanding borrowings under the credit agreement. The interest rate on credit agreement borrowings was 3.3 percent in 1993 (4.5 percent in 1992 and 6.2 percent in 1991).

The bank credit agreement contains covenants that restrict the ability of UCC or UCC&P to merge with another entity, incur or guarantee debt, create liens against assets, sell or transfer receivables and that require the corporation to meet net worth, leverage, and interest coverage tests. Other indentures also restrict the corporation from incurring liens to secure debt.

On Jan. 31, 1993, UCC&P redeemed all of its outstanding 15 percent senior debentures due 2006 at a price equal to 103 percent of the principal amount of \$12 million. On March 16, 1993, UCC&P called for redemption all of its outstanding 7.5 percent convertible subordinated debentures due 2012. Holders converted \$261 million principal amount of the debentures into 16.5 million shares of UCC common stock at a price of \$15.79 per share and redeemed \$84 million principal amount for cash at a price equal to 103.8 percent of the principal amount of each debenture. On April 1, 1993, UCC&P completed a \$300 million, two-part public offering of \$175 million principal amount of 7.875 percent 30 year debentures due April 1, 2023 and \$125 million principal amount of 10 year 6.75 percent notes due April 1, 2003. On June 9, 1993, UCC&P prepaid \$100 million of private placement debt. This refinancing strategy enabled the corporation to reduce ongoing interest expense and extend the average life of its long-term debt.

Pollution control and other facility obligations represent state, commonwealth and local governmental bond financing of pollution control and other facilities, and are treated for accounting and tax purposes as debt of UCC&P. These tax-exempt obligations mature at various dates from 1994 through 2023, and have an average annual effective rate of 7.3 percent.

At Dec. 31, 1993, \$51 million of consolidated assets were pledged as security for \$47 million of subsidiaries' debt.

Payments due on long-term debt in the four years following 1994 are: 1995, \$12 million; 1996, \$24 million; 1997, \$18 million; and 1998, \$5 million.

The corporation uses various types of financial instruments to manage exposure to financial market risk caused by interest rate and currency fluctuations. Such instruments include interest rate swaps, forward rate agreements, and foreign currency swaps. At Dec. 31, 1993, the net notional amount of interest rate swaps outstanding was \$625 million (\$575 million at Dec. 31, 1992), whereby the corporation receives payments based on fixed rates and makes payments based on floating rate indices. These swaps have maturities ranging from Dec. 1994 to Aug. 2002. The forward rate agreements used to hedge against a rise in floating rate indices, particularly the six month London Interbank Offered Rate (LIBOR), were \$1.7 billion at Dec. 31, 1993 (\$275 million at Dec. 31, 1992). All of the forward rate agreements outstanding at the end of 1993 were transacted to lock in the floating rates associated with the swap portfolio through the end of 1994. Foreign currency swaps were not material.

As a result of the above transactions, the average interest rate in 1994 on \$625 million of the corporation's fixed rate debt will be lowered from 7.5 percent to an effective rate of 5.4 percent. The effective interest rate on this debt in 1995 will be subject to the level of short term interest rates at that time.

The fair value of the corporation's borrowings (debt and related interest or currency swaps and forward rate agreements, including effects of counterparty creditworthiness) approximates the carrying value of the borrowings.

## 12. Convertible Preferred Stock

The Union Carbide Corporation Employee Stock Ownership Plan (ESOP) is an integral part of the Savings Program for employees. On Jan. 1, 1991, the Trust for the ESOP purchased 15.1 million shares of a new series of convertible preferred stock (ESOP stock) from the corporation for \$325 million.

During the second quarter of 1992, and prior to the spin-off of Praxair the corporation repurchased 7.5 million shares of unallocated ESOP stock from the ESOP's trustee for \$26.875 per share or \$202 million. This was done to preserve the expected life of the ESOP, which had fewer participating employees as a result of the spin-off of Praxair. The repurchased shares were retired at their liquidation value, and unearned employee compensation was reduced accordingly. Also in connection with the spin-off, approximately one million shares of the ESOP stock held by individuals who became employees of Praxair were redeemed for Union Carbide Corporation common stock.

The terms of the ESOP stock provide that the ESOP conversion price, liquidation price, dividend and number of shares of ESOP stock be adjusted upon the distribution of Praxair stock to stockholders so that the interests of the ESOP stockholders are not diluted. At the date of the spin-off of Praxair, the conversion price, liquidation price and annual preferred dividend of the ESOP stock were adjusted from \$21.50, \$21.50 and \$1.90, respectively, to \$8.981, \$8.981 and \$0.794, respectively. After a special ESOP stock dividend in 1992 of 10.5 million shares for antidilution purposes, the ESOP stock outstanding at Dec. 31, 1993, is convertible into a total of 16.7 million shares of the corporation's common stock.

Substantially all full-time employees in the United States are eligible to participate in the ESOP through the corporation's matching contribution of 50 percent on employee contributions up to prescribed limits. Record ownership of the ESOP stock can be held only by the trustee for the ESOP. The cost of the ESOP is recognized as incurred and was \$6 million in 1993 (\$16 million in 1992 and \$28 million in 1991). Reductions in ESOP costs in 1993 and 1992 were due primarily to appreciation in the corporation's common stock and the spin-off of Praxair in 1992. At Dec. 31, 1993, there were approximately 4 million shares of ESOP stock credited to employees' accounts of which 1 million were credited during 1993.

It is UCC's policy to redeem the ESOP stock with cash. UCC has no present intention to redeem such stock other than as required in the usual course to satisfy provisions of the ESOP.

## 13. UCC Stockholders' Equity

At Dec. 31, 1993, *Retained Earnings* included \$108 million (\$110 million at Dec. 31, 1992), representing the corporation's share of undistributed earnings of 20 percent to 50 percent-owned companies accounted for by the equity method. Dividends received from companies carried at equity aggregated \$92 million in 1993, \$64 million in 1992 and \$41 million in 1991. Certain consolidated domestic and international subsidiaries are restricted by borrowing arrangements, regulatory restraints or the laws of local governments as to their ability to transfer funds to the parent in the form of cash dividends, loans or advances. At Dec. 31, 1993, the amount of such restricted net assets was not material.

In July 1989 the Board of Directors adopted a stockholder rights plan and declared a dividend payable on Aug. 31, 1989, of one Right for each outstanding share of common stock. Each Right entitles its holder, under certain circumstances, to buy a share of common stock at a purchase price of \$37.67 (subject to adjustment). This price reflects the adjustment required upon distribution of Praxair's stock to stockholders on June 30, 1992 (see note 5).

The Rights may not be exercised until 10 days after a person or group acquires 20 percent or more of UCC's common stock, or announces a tender offer, that if consummated would result in 20 percent or more ownership of the common stock.

Separate Rights certificates will not be issued nor will the Rights be traded separately from the stock until then.

Should an acquirer become the beneficial owner of 20 percent of the common stock, and under certain additional circumstances, Union Carbide Corporation stockholders (other than the acquirer) would have the right to buy common stock in Union Carbide Corporation, or in the surviving enterprise if the corporation is acquired, having a value equal to two times the purchase price of the Right then in effect.

The Rights will expire on Aug. 31, 1999, unless redeemed prior to that date. The redemption price is \$0.01 per Right. The corporation's independent directors may redeem the Rights by a majority vote during the 10-day period following public announcement that a person or group has acquired 20 percent of UCC's common stock.

In the first quarter of 1993 the Board of Directors announced that it had authorized the repurchase of up to 10 million shares of UCC common stock over an unlimited period in order to minimize future earnings dilution due to common stock requirements under certain employee benefit plans. Through Dec. 31, 1993, the corporation had repurchased 3,687,800 shares at an average effective price of \$18.87 per share.

In conjunction with the corporation's common stock buyback program, put options were sold in a series of private placements entitling the holders to sell 2,625,000 shares of common stock to UCC, at specified prices if the holders exercise the options. During 1993 options representing 2,525,000 common shares expired unexercised, while options representing 100,000 shares remain outstanding. Premiums received on these options reduced the average price of repurchased shares to \$18.87 per share from \$19.24 per share.

## 14. Leases

Leases that meet the criteria for capitalization have been classified and accounted for as capital leases. For operating leases, primarily involving facilities and distribution equipment, the future minimum rental payments under leases with remaining noncancelable terms in excess of one year are:

Year Ending December 31,	Millions of Dollars
1994 .....	\$ 82
1995 .....	195
1996 .....	51
1997 .....	51
1998 .....	39
Subsequent to 1998 .....	285
Total minimum payments .....	703
Future sublease rentals .....	109
<b>Net minimum rental commitments .....</b>	<b>\$594</b>

The present value of the net minimum rental commitments amounts to \$440 million. Total lease and rental payments (net of sublease rental of \$10 million in 1993 and 1992, \$9 million in 1991) were \$98 million, \$92 million and \$90 million for 1993, 1992 and 1991, respectively. UCC&P is contingently required to pay certain domestic lease obligations assigned to Praxair, in the event of Praxair's default, the present value of which totals \$24 million. If such a payment is required, UCC&P has a legal right to set off any such amounts paid against amounts it may owe to Praxair.

## 15. Retirement Programs

### Pension Benefits

The noncontributory defined benefit retirement program of Union Carbide Corporation ("U.S. Retirement Program") covers substantially all U.S. employees and certain employees in other countries. Pension benefits are based primarily on years of service and compensation levels prior to retirement.

Pension coverage for employees of the corporation's nonU.S.

consolidated subsidiaries is provided, to the extent deemed appropriate, through separate plans. Obligations under such plans are systematically provided for by depositing funds with trustees, under insurance policies, or by book reserves.

Worldwide Retirement Program net pension cost applicable to continuing operations amounted to \$20 million in 1993, \$22 million in 1992 and \$28 million in 1991. For discontinued operations (see Note 5), net pension cost amounted to \$8 million through June 30, 1992 and \$16 million in 1991.

The components of net pension cost for the U.S. Retirement Program and nonU.S. plans in 1993, 1992 and 1991 are as follows:

Millions of Dollars <sup>a</sup>	1993	1992	1991
Service cost - benefits earned during the period .....	\$ 48	\$61	\$79
Interest cost on projected benefit obligation .....	182	191	204
Return on plan assets			
- Actual .....	\$(430)	\$(150)	\$(508)
- Unrecognized return .....	229 (201)	(64) (214)	279 (229)
Amortization of net gain .....	(9)	(8)	(10)
<b>Net pension cost .....</b>	<b>\$ 20</b>	<b>\$30</b>	<b>\$44</b>

a) Table includes net pension costs for Praxair through June 30, 1992.

The funded status of the U.S. Retirement Program and nonU.S. plans was as follows:

Millions of Dollars at December 31,	1993	1992
Actuarial present value of plan benefits:		
Accumulated benefit obligation, including vested benefits of \$2,261 million at December 31, 1993, and \$1,934 million at December 31, 1992 .....	\$(2,404)	\$(2,064)
Projected benefit obligation .....	\$(2,652)	\$(2,348)
Fair value of plan assets, primarily invested in common stocks and fixed income securities .....	\$ 2,747	\$ 2,470
Plan assets in excess of projected benefit obligation .....	\$ 95	\$ 122
Unamortized net asset at transition .....	(92)	(102)
Unamortized prior service cost .....	30	35
Unrecognized gains - net .....	(20)	(47)
<b>Prepaid pension cost .....</b>	<b>\$ 13</b>	<b>\$ 8</b>

The actuarial assumptions used were as follows:

	1993	1992
Discount rate for determining projected benefit obligation.....	7.00%	8.00%
Rate of increase in compensation levels.....	4.25%	5.25%
Expected long-term rate of return on plan assets.....	8.25%	8.75%

### Postretirement Benefits Other Than Pensions

The corporation and certain of its consolidated subsidiaries provide health care and life insurance benefits for eligible retired employees and their eligible dependents. These benefits are provided through various insurance companies and health care providers.

FAS 106 was adopted in the fourth quarter of 1992, effective Jan. 1, 1992, for U.S. and international employees. The standard requires employers to account for retiree benefit obligations on an accrual basis rather than on a "pay-as-you-go" basis. The cumulative effect of adopting FAS 106 as of Jan. 1, 1992, resulted in a charge of \$360 million to 1992 earnings, net of \$205 million of income taxes (\$2.72 per share).

The obligation is determined by application of the terms of health and life insurance plans, together with relevant actuarial assumptions and health-care cost trend rates projected at annual rates ranging from 12 percent in 1994 graded down to 5.5 percent for 2004 and thereafter. As of Jan. 1, 1992, the actuarial assumptions were 15 percent for 1992, 14 percent for 1993 and 13 percent for 1994 graded down to 6.5 percent for 2004 and thereafter.

The effect of a one percent annual increase in the assumed health-care cost trend rates would increase the accumulated postretirement benefits obligation at Dec. 31, 1993, by \$15 million (\$40 million at Dec. 31, 1992) and the aggregate of service and interest cost components of net periodic postretirement benefit costs by \$2 million (\$5 million at Dec. 31, 1992). Measurement of the accumulated postretirement benefit obligation was based on the same assumptions used in the pension calculations referred to above.

During 1993 the corporation made changes to its health care programs, principally related to plan eligibility requirements for active employees. These changes resulted in a reduction of the accumulated postretirement benefit obligations.

The corporation has funded postretirement benefits for certain retirees who retired prior to Dec. 31, 1988. The funds are invested primarily in common stocks and fixed income securities.

The following tables provide information on the status of the plans:

The funded status at December 31,	1993	1992
(Dollars in millions)		
Accumulated postretirement benefit obligations:		
Retirees.....	\$347	\$336
Fully eligible active plan participants.....	88	116
Other active plan participants.....	23	123
Accumulated postretirement benefit obligations.....	\$458	\$575
Fair value of plan assets.....	(26)	(31)
Accumulated postretirement benefits in excess of plan assets.....	432	544
Unrecognized gains - net.....	87	-
Accrued unfunded postretirement benefit obligations <sup>a</sup> .....	\$519	\$544

a) The current portion of this obligation is recorded in *Other accrued liabilities* and is \$30 million at Dec. 31, 1993 (\$36 million at Dec. 31, 1992).

The accumulated postretirement benefit obligation for retirees is net of \$145 million at Dec. 31, 1993 (\$152 million at Dec. 31, 1992) related to all retirees, which is reimbursed to the corporation in part from Praxair and UCAR under benefit-sharing agreements.

The components of net periodic postretirement benefit cost is as follows:

	1993	1992
(Dollars in millions)		
Service cost-benefits earned during the period.....	\$12	\$11
Interest cost on projected benefit obligation.....	32	42
Return on assets		
Actual.....	\$(5)	\$ (3)
Unrecognized return.....	3	1
Net amortization and deferral.....	(21)	-
Net periodic postretirement benefit cost.....	\$21	\$51

In 1991, the corporation recognized expense of \$29 million under the "pay-as-you-go" method.

### Postemployment Benefits

As discussed in Note 1, the cumulative effect of adopting FAS 112 as of Jan. 1, 1993, resulted in a charge of \$97 million to 1993 earnings, net of \$54 million income taxes (\$0.64 per common share). FAS 112 requires that postemployment benefits expected to be paid before retirement, principally severance, be accrued over employees' working lives. This charge includes postemployment benefits based on normal year-to-year attrition rates, giving effect to the corporation's cost reduction program as of Jan. 1, 1993. Prior year financial statements have not been restated.

## 16. Incentive Plans

In 1988 stockholders approved the 1988 Union Carbide Long-Term Incentive Plan for key employees, which replaced the 1984 Union Carbide Stock Option Plan. The Long-Term Incentive Plan, which expired Dec. 31, 1993 provided for granting incentive and nonqualified stock options, stock appreciation rights (SAR's), exercise payment rights (EP's), and grants of stock and performance awards. No performance awards were made under the 1988 plan. The amount of any exercise payment may not exceed 60 percent of the amount by which the market price of the common stock on the date of exercise exceeds the option price. In June 1991, the corporation canceled all existing SAR awards while leaving the holder with the underlying stock options. The accumulated accruals relating to SAR awards were credited to *Paid-In Capital*. Holders of options could have been granted the right to receive payments of amounts equal to the regular cash dividends paid to holders of the corporation's common stock during the period that the option was outstanding. None were granted under the 1988 plan. The number of shares granted or subject to options could not exceed 15 million under the plan. Option prices are equal to the closing price of the corporation's common stock on the date of the grant as listed on the New York Stock Exchange Composite Transactions. Options generally become exercisable either one year or two years after such date. Options may not have a duration of more than 10 years.

No further awards can be made under the 1988 plan. Some of the options granted under the 1984 Union Carbide Stock Option Plan are still outstanding, and have terms similar to nonqualified stock options granted under the 1988 plan.

For EP's granted, income is adjusted in each quarter to reflect the changes in the market price of the common stock.

Changes during 1993 in outstanding shares under option were as follows:

Shares (in thousands)	
1993	Total
Outstanding at January 1 .....	11,825
Granted .....	5,427
Exercised .....	(3,107)
Canceled or expired .....	(33)
<b>Outstanding at December 31<sup>a</sup> .....</b>	<b>14,112</b>

a) Included in this total were approximately 6,000 options with exercise payment rights.

Options outstanding at Dec. 31, 1993, ranged in price from \$1.00 to \$21.625 per share, as adjusted for the distribution of Praxair stock in accordance with the terms of the plan. At Dec. 31, 1993, 6,640,555 options were exercisable at prices ranging from \$1.00 to \$11.368 per share. Options were exercised during 1993 at prices ranging from \$1.00 to \$12.231 per share.

## 17. Commitments and Contingencies

**Purchase Agreements** – The corporation has entered into three agreements for the purchase of ethylene-related products and two agreements for the availability of terminal storage from facilities located in the United States and Canada. The net present value of the fixed and determinable portion of obligations under these purchase commitments at Dec. 31, 1993 (at current exchange rates, where applicable) are presented in the following table.

Millions of Dollars	
1994 .....	\$ 47
1995 .....	75
1996 .....	65
1997 .....	56
1998 .....	49
1999 to expiration of contracts .....	164
<b>Total .....</b>	<b>\$456</b>

**Environmental** – The corporation is subject to loss contingencies resulting from environmental laws and regulations, which include obligations to remove or mitigate the effects on the environment of the disposal or release of certain wastes and substances at various sites. The corporation has established accruals for those hazardous waste sites where it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. The reliability and precision of the loss estimates are affected by

numerous factors, such as different stages of site evaluation, the allocation of responsibility among potentially responsible parties and the assertion of additional claims. The corporation adjusts its accruals as new remediation requirements are defined, as information becomes available permitting reasonable estimates to be made, and to reflect new and changing facts.

At Dec. 31, 1993, the corporation had established environmental remediation accruals in the amount of \$265 million (\$234 million in 1992), of which \$214 million is classified as *Other long-term obligations*. Approximately 28 percent of the corporation's environmental accrual at Dec. 31, 1993, pertains to closure and postclosure costs for both operating and closed facilities. In addition, the corporation had environmental loss contingencies of \$115 million at Dec. 31, 1993 (\$90 million at Dec. 31, 1992).

**Other** – The corporation sold certain receivables with recourse to various banks for proceeds of \$270 million in 1993 (\$249 million in 1992). At Dec. 31, 1993, approximately \$47 million remain due (\$38 million in 1992). The fair value of the recourse provisions at Dec. 31, 1993, approximates the carrying value.

The corporation and its consolidated subsidiaries had additional contingent obligations at Dec. 31, 1993, totaling \$68 million, of which \$40 million related to guarantees of debt.

**Litigation** – In February 1989 UCC&P and Union Carbide India Limited (UCIL) paid \$470 million to the Union of India in final settlement of all civil claims with respect to the Dec. 3, 1984, methyl isocyanate gas release at the UCIL plant in Bhopal, India. In 1991, at the request of the Supreme Court of India, UCC&P and UCIL announced that together they would provide the government with up to Rs. 50 crores (\$16 million) for a hospital to be built in Bhopal by the government.

In 1992, UCC&P pledged its shares in UCIL to an English charitable trust established by UCC and UCC&P to provide funding for the hospital, and subsequently, the magistrate in pending criminal proceedings with respect to the gas release ordered the attachment of the shares of UCIL held by UCC&P. In February 1994 UCC&P and UCIL agreed to increase funding for the hospital to Rs. 60 crores (\$19.3 million). The Supreme Court of India has ordered that the attachment be lifted to permit sales of the UCIL shares, with a portion of the proceeds, together with previously blocked dividends and UCIL's contribution, to provide the agreed funding. The remainder of the proceeds from the sale of UCIL shares will be subject to the attachment.

In the opinion of counsel for the corporation, under generally recognized legal principles, the criminal proceedings in India should not have adverse financial consequences for the corporation outside of India. The assets subject to the attachment in the criminal proceedings are primarily the shares of UCIL,

carried at \$26 million in the consolidated financial statements of the corporation.

The corporation is one of a number of defendants named in an increasing number of lawsuits, some of which have more than one plaintiff, involving silicone gel breast implants. The corporation supplied bulk silicone materials to certain companies that at various times were involved in the manufacture of breast implants or precursors used to make components of breast implants. Also in 1990 the corporation acquired, and in 1992 divested, the stock of a small specialty silicones company which, among other things, supplied silicone gel intermediates and silicone dispersions for breast implants.

Most of the suits that were brought in Federal courts have been consolidated for pre-trial purposes in the Northern District of Alabama. In conjunction with proceedings in that Federal court, the corporation has engaged in discussions with several breast implant manufacturers over the allocation of the cost of a settlement under discussion among manufacturers, certain suppliers, and representatives of plaintiffs' counsel. All the discussions are in a preliminary stage. It is the corporation's position that as a bulk raw material supplier its contribution to any settlement should be relatively minor. Any proposed settlement would be subject to fairness hearings and possible challenges from various plaintiffs that not only could delay a settlement but might alter its terms. At this time, it is not possible to predict whether the proposed settlement will occur or what its terms would be.

The corporation believes that it has insurance for any settlement that would cover a significant part of the corporation's contribution to a settlement. However, the insurance coverage is subject to issues as to scope and application of policies, retention limits, exclusions and policy limits, and the insurers have reserved their rights to deny coverage.

In addition to the above, the corporation and its consolidated subsidiaries are involved in a number of legal proceedings and claims with both private and governmental parties. These cover a wide range of matters including, but not limited to: product liability; governmental regulatory proceedings; health, safety and environmental matters; employment; patents; contracts and taxes. In some of these legal proceedings and claims, the remedies that may be sought or damages claimed are substantial.

While it is impossible at this time to determine with certainty the ultimate outcome of any legal proceedings and claims referred to in this note, management believes that adequate provisions have been made for probable losses with respect thereto and that such ultimate outcome, after provisions therefor, will not have a material adverse effect on the consolidated financial position of the corporation but could have a material effect on consolidated results of operations in a given quarter or year. Should any losses be sustained in connection with any of such legal proceedings and claims, in excess of provisions therefor, they will be charged to income in the future.

# Management's Statement of Responsibility for Financial Statements

Union Carbide Corporation's financial statements are prepared by management, which is responsible for their fairness, integrity and objectivity. The accompanying financial statements have been prepared in conformity with generally accepted accounting principles and, accordingly, include amounts that are estimates and judgments. All historical financial information in this annual report is consistent with the accompanying financial statements.

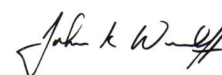
The corporation maintains accounting systems, including internal accounting controls monitored by a staff of internal auditors, that are designed to provide reasonable assurance of the reliability of financial records and the protection of assets. The concept of reasonable assurance is based on recognition that the cost of a system must not exceed the related benefits. The effectiveness of those systems depends primarily upon the careful selection of financial and other managers, clear delegation of authority and assignment of accountability, inculcation of high business ethics and conflict-of-interest standards, policies and procedures for coordinating the management of corporate resources and the leadership and commitment of top management.

The corporation's financial statements are audited by KPMG Peat Marwick, independent certified public accountants, in accordance with generally accepted auditing standards. These standards provide for the auditors to consider the corporation's internal control structure to the extent they deem necessary in order to issue their opinion on the financial statements.

The Audit Committee of the Board of Directors, which consists solely of nonemployee directors, is responsible for overseeing the functioning of the accounting system and related controls and the preparation of annual financial statements. The Audit Committee recommends to the Board of Directors the selection of the independent auditors, subject to the approval of stockholders. The Audit Committee periodically meets with the independent auditors, management and internal auditors to review and evaluate their accounting, auditing and financial reporting activities and responsibilities. The independent and internal auditors have full and free access to the Audit Committee and meet with the committee, with and without management present.



Robert D. Kennedy  
Chairman and  
Chief Executive Officer



John K. Wulff  
Vice President, Controller and  
Principal Accounting Officer

Danbury, Conn.  
Jan. 26, 1994

## Independent Auditors' Report

 Peat Marwick

### To the Stockholders and Board of Directors of Union Carbide Corporation:

We have audited the accompanying consolidated balance sheet of Union Carbide Corporation and subsidiaries as of Dec. 31, 1993 and 1992, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the years in the three-year period ended Dec. 31, 1993. These consolidated financial statements are the responsibility of the company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements.

An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Union Carbide Corporation and subsidiaries at Dec. 31, 1993 and 1992, and the results of their operations and their cash flows for each of the years in the three-year period ended Dec. 31, 1993, in conformity with generally accepted accounting principles.

As discussed in Note 1 to the consolidated financial statements, in 1993 the company changed its method of accounting for postemployment benefits and in 1992 its methods of accounting for postretirement benefits other than pensions and income taxes.



Stamford, Conn.  
Jan. 26, 1994

# Corporate Information

## 1994 ANNUAL MEETING

The 1994 annual meeting of stockholders will be held on Wednesday, April 27, in the Grand Ballroom of the Danbury Hilton and Towers, 18 Old Ridgebury Road, Danbury, CT 06810, beginning at 11 A.M.

A notice of the annual meeting, proxy statement and proxy voting card are mailed to each stockholder in March, together with a copy of the current annual report.

## GENERAL OFFICES

The general offices of Union Carbide Corporation are located at 39 Old Ridgebury Road, Danbury, CT 06817-0001 (Telephone: 203-794-2000).

Inquiries from the public about Union Carbide and its products and services should be directed to the Corporate Information Center, Union Carbide Corporation, Section N-O, 39 Old Ridgebury Road, Danbury, CT 06817-0001 (Telephone: 203-794-5300).

## STOCK EXCHANGES

Union Carbide stock is traded primarily on the New York Stock Exchange (ticker symbol: UK). The stock is also listed on the Midwest and Pacific Stock Exchanges in the U.S., and overseas on the exchanges in Amsterdam, Basel, Brussels, Frankfurt, Geneva, Lausanne, London, Paris and Zurich.

## STOCKHOLDER INQUIRIES

Inquiries about stockholder accounts and dividend reinvestment should be directed to Union Carbide Corporation, Shareholder Services, William H. Smith, manager, shareholder services, Section G-1, 39 Old Ridgebury Road, Danbury, CT 06817-0001. (Telephone: 203-794-3350).

## DIVIDEND REINVESTMENT

Stockholders of record may purchase shares directly through Union Carbide's Dividend Reinvestment and Stock Purchase Plan. Under the plan, shares may be purchased from UCC free of commissions and service charges.

Requests for a prospectus that explains the plan in detail should be directed to Shareholder Services at the above address (Telephone: 800-934-3350).

## STOCK RECORDS AND TRANSFER

The corporation acts as its own stock transfer agent through Shareholder Services, which also maintains stockholder records, transfers stock and answers questions regarding stockholders' accounts, including dividend reinvestment accounts. Stockholders wishing to transfer stock to someone else or to change the name on a stock certificate should contact Shareholder Services for assistance. The Registrar is Chemical Bank.

## FORM 10-K AVAILABLE

A Form 10-K Report for the year ended Dec. 31, 1993, will be available in April 1994. A copy without exhibits may be obtained without charge by writing to Union Carbide Corporation, Joseph E. Geoghan, secretary, Section E-4, 39 Old Ridgebury Road, Danbury, CT 06817-0001.

Union Carbide annually publishes a list of organizations receiving charitable, educational, cultural or similar grants of \$5,000 or more. This list is available to any stockholder on written request to the secretary at the above address.

## RESPONSIBLE CARE PROGRESS REPORT

This report covers health, safety and environmental progress at Union Carbide. Information includes performance data for U.S. and international locations, goals and progress toward full implementation of RESPONSIBLE CARE management practices in the U.S. To obtain a copy, write to Union Carbide Corporation, Public Affairs Department, Scott Brier, business communications manager, Section K-3, 39 Old Ridgebury Road, Danbury, CT 06817-0001 (Telephone: 203-794-7011).

## INQUIRIES

Institutional investors, financial analysts and portfolio managers should direct questions to Union Carbide Corporation, Investor Relations Department, D. Nicholas Thold, director of investor relations, Section E-4, 39 Old Ridgebury Road, Danbury, CT 06817-0001 (Telephone: 203-794-6440).

Financial journalists should direct questions to Union Carbide Corporation, Public Affairs Department, Tom F. Sprick, assistant manager, financial communications, Section K-3, 39 Old Ridgebury Road, Danbury, CT 06817-0001 (Telephone: 203-794-6992).

# Directors and Corporate Officers

## Directors

**John J. Creedon**, 69, is retired president and chief executive officer of Metropolitan Life Insurance Company. A Carbide director since 1984, he chairs the Audit Committee and serves on the Compensation & Management Development, Executive and Health, Safety and Environmental Affairs (HS&EA) Committees.

**C. Fred Fetterolf**, 65, is a retired director, president and chief operating officer of Aluminum Company of America. A UCC director since 1987, he chairs the HS&EA Committee and serves on the Audit, Compensation & Management Development and Nominating Committees.

**Joseph E. Geoghan**, 56, is vice-president, general counsel and secretary of Union Carbide Corporation, and has been a director since 1990. He serves on the Executive and Public Policy Committees.

**James M. Hester**, 69, is president of The Harry Frank Guggenheim Foundation. A director since 1963, he is chairman of the Public Policy Committee and serves on the Audit, Executive and Nominating Committees.

**Vernon E. Jordan, Jr.**, 58, is a partner with Akin, Gump, Strauss, Hauer & Feld. He is chairman of the Nominating Committee and a member of the Compensation & Management Development, Finance & Pension and Public Policy Committees. He has been a board member since 1987.

**William H. Joyce**, 58, is president and chief operating officer of Union Carbide Corporation. He serves on the Executive and Finance & Pension Committees, and has been a director since 1992.

**Robert D. Kennedy**, 61, is chairman and chief executive officer of Union Carbide Corporation and has been a director since 1985. He is chairman of the Executive Committee.

**Ronald L. Kuehn, Jr.**, 58, is a director and chairman, president and chief executive officer of Sonat, Inc. A UCC board member since 1984, he chairs the Compensation & Management Development Committee and serves on the Finance & Pension, HS&EA and Nominating Committees.

**C. Peter McColough**, 71, is a director and retired chairman of the board of Xerox Corporation. He has been a Carbide director since 1979 and is a member of the Compensation & Management Development, Executive, HS&EA and Public Policy Committees.

**Rozanne L. Ridgway**, 58, is co-chair of the Atlantic Council of the United States. Appointed to the board in 1990, she is a member of the Audit, HS&EA, Nominating and Public Policy Committees.

**William S. Sneath**, 67, is a director of various corporations and retired chairman and chief executive officer of Union Carbide Corporation. He chairs the Finance & Pension Committee and serves on the Executive, HS&EA and Nominating Committees. He has been a director since 1969.

## Corporate Officers

### Robert D. Kennedy

Chairman of the Board and Chief Executive Officer

### William H. Joyce

President and Chief Operating Officer

### Joseph S. Byck

Vice-President, Strategic Planning, Investor Relations and Public Affairs

### James F. Flynn

Vice-President

### Joseph E. Geoghan

Vice-President, General Counsel and Secretary

### Thomas D. Jones

Vice-President and Treasurer

### Malcolm A. Kessinger

Vice-President, Human Resources

### Lee P. McMaster

Vice-President

### Gilbert E. Playford

Vice-President and Principal Financial Officer

### Joseph C. Soviero

Vice-President, Corporate Ventures and Purchasing

### Roger B. Staub

Vice-President

### Ronald Van Mynen

Vice-President, Health, Safety & Environment

### John K. Wulff

Vice-President, Controller and Principal Accounting Officer

## Other Senior Corporate Staff

### David L. Brucker

Vice-President —  
Engineering and Operations

### William W. Lindner

Vice-President —  
Purchasing

### John L. Gigerich

Vice-President —  
Information Systems

### Philip F. McGovern

Vice-President —  
Tax



## Definition of Terms

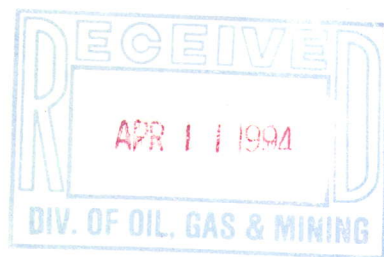
Unless the context otherwise requires, the terms below refer to the following:

<b>Union Carbide Corporation, Union Carbide, Carbide, the corporation, we, our, the company, UCC</b>	Union Carbide Corporation, the parent company, and its consolidated subsidiaries
<b>UCC&amp;P Inc., UCC&amp;P</b>	Union Carbide Chemicals and Plastics Company Inc., the wholly owned subsidiary of Union Carbide Corporation
<b>Domestic</b>	United States and Puerto Rico
<b>Domestic operations</b>	Operations of Union Carbide in this area, including exports
<b>International operations</b>	Operations of Union Carbide in areas of the world other than the United States and Puerto Rico
<b>Praxair, Inc., Praxair</b>	Former worldwide industrial gases and coatings service business of Union Carbide Corporation, spun off to UCC stockholders on June 30, 1992
<b>UCAR Carbon Company Inc., UCAR Carbon, UCAR International Inc., UCAR</b>	Former carbon products business of Union Carbide Corporation, now a joint venture with Mitsubishi Corporation

The use of these terms is for convenience of reference only. The consolidated subsidiaries are separate legal entities, which are managed by, and accountable to, their respective boards of directors.



Union Carbide Corporation  
39 Old Ridgebury Road  
Danbury, CT 06817-0001



REF1: RE: Utah Board of Oil, Gas and  
REF2: Mining and Union Carbide Corp.  
REF3: and its wholly-owned subsidiary  
REF4: Umetco Mineral Corporation Mined-  
REF5: Lands Reclamation Contracts